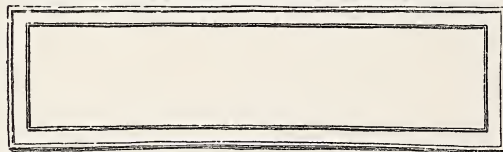
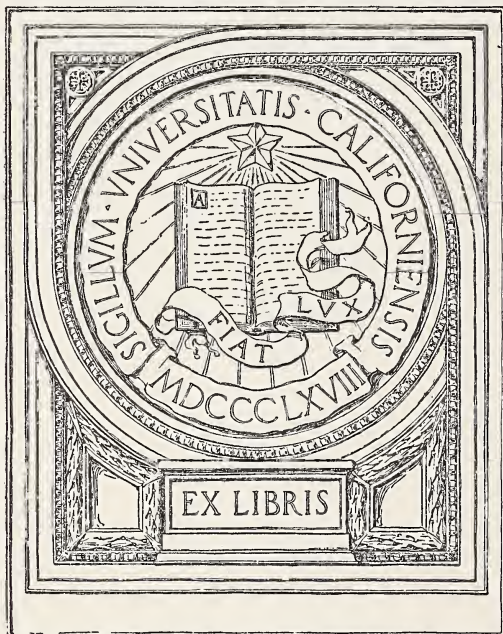
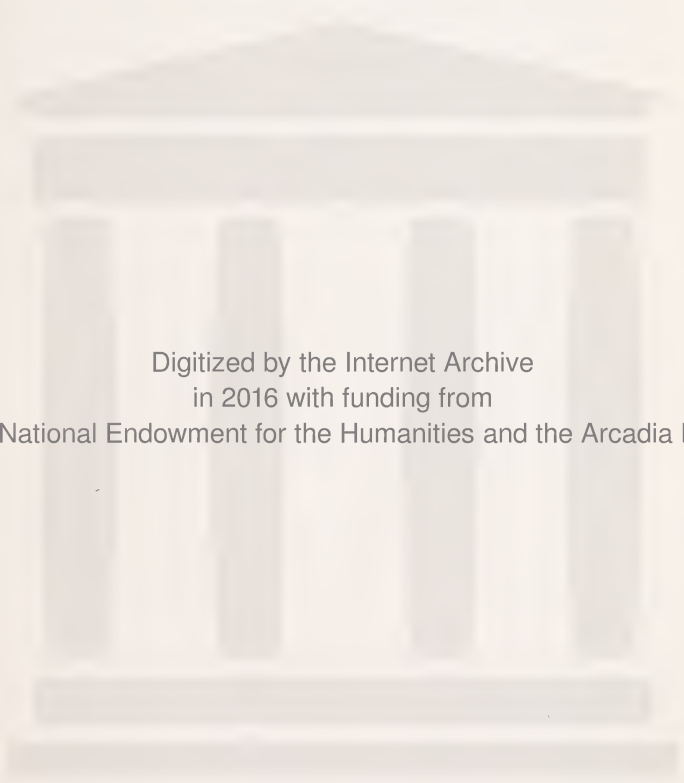


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*Paullum sepulta distat inertie
Celata virtus.—HORACE.*

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

(Established in 1844.)

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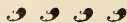
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Treatment of **TYPHOID FEVER**

A LATE number of the *Medical Record* contains an illustrated article on the abortive treatment of Typhoid as inaugurated by Dr. Woodbridge. The temperature charts of a number of cases treated in Bellevue Hospital are given, and the whole subject so completely reported that it is difficult to understand how there can be any mistake. Dr. Woodbridge has been accused of treating cases which were not typhoid, and yet reporting them as such. In these cases treated at Bellevue, however, the blood was examined by the bacteriologist of the Board of Health of New York City, and each specimen gave a positive reaction of the typhoid bacilli of Koch-Eberth. Therefore, the cases must be accepted as those of true typhoid fever. The patients had no baths, and were given only the Woodbridge treatment. In each case the disease was shortened, there was an absence of delirium, the tongue remained moist, there was a rapid disappearance of abdominal tenderness, and of tympanites and all offensive odor from the stools. — *Journal of Practical Medicine*, March, 1897, page 378.

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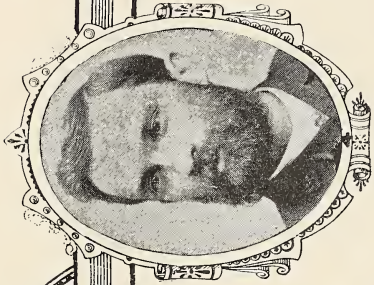
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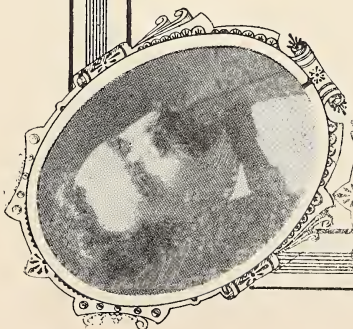
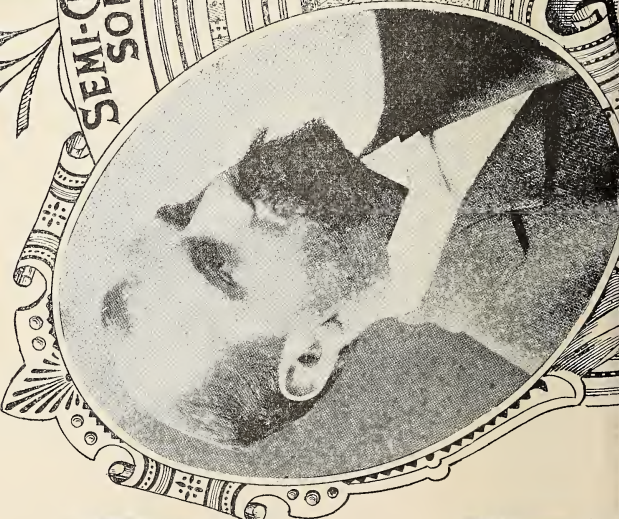
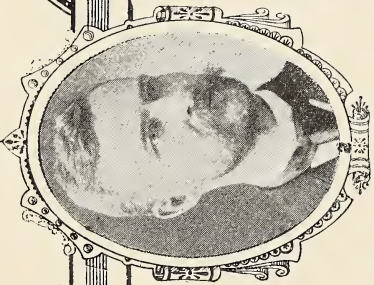
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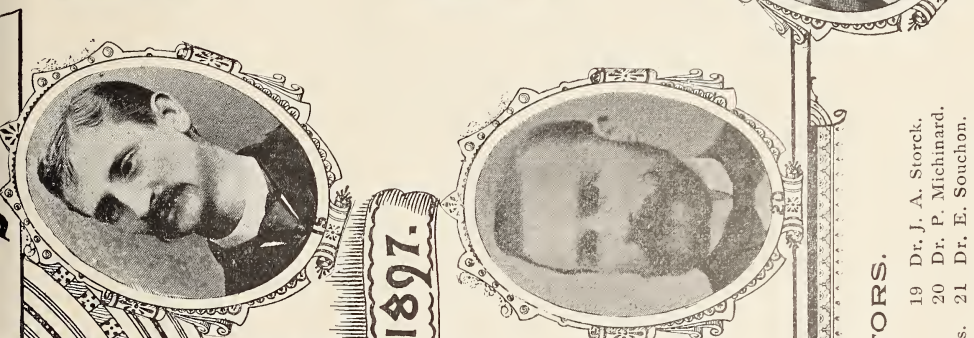
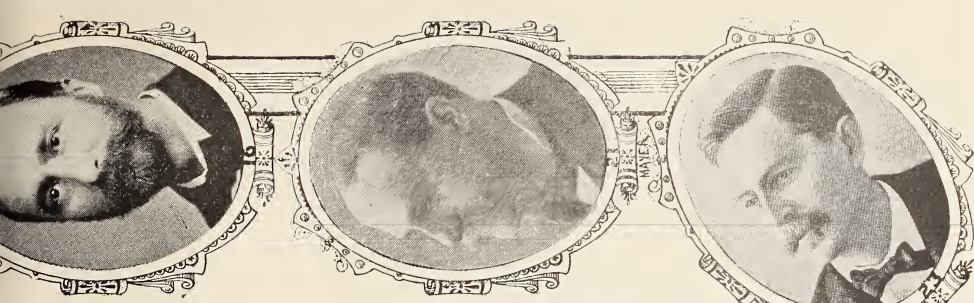
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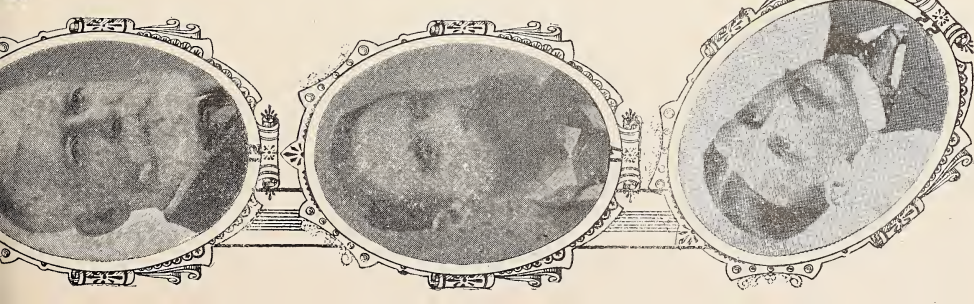




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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. L.

JULY, 1897.

No. 1.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

THE USE OF THE MIXED TOXINS IN THE TREATMENT OF OPERABLE SARCOMA.*

By JNO. E. OWENS, M. D., Clinical Professor of Surgery, Northwestern
University Medical School, Chicago.

The beneficial results from the treatment of inoperable sarcomatous tumors with toxins of erysipelas and the bacillus prodigiosus are so striking that the subject seems to me most worthy of your consideration.

Experiments in this direction were inaugurated by Dr. Wm. B. Coley, of the Cancer Hospital, New York, in April, 1891. The interest excited by the antagonistic and gratifying action of accidental erysipelas in a case of recurrent inoperable round-celled sarcoma led to the formulation of this method of treatment. In the case referred to (and this was not the only case) the patient was known to be healthy and well seven years after the attack of accidental erysipelas.†

The first case treated by Dr. Coley was a recurrent sarcoma of the neck and tonsil in a male 37 years old. The patient had been twice operated upon. After the second operation, a portion of the tumor of the tonsil, involving the deep structures remained. It grew rapidly and filled the pharynx to such an

* Read at meeting Illinois State Medical Society, May 1, 1897.

† "The Treatment of Inoperable Malignant Tumors with Toxins of Erysipelas and Bacillus Prodigiosus," read at the American Surgical Association, in 1894.]

extent that only liquid food could be taken, and this was frequently regurgitated. The patient was greatly emaciated. Dr. Coley began by giving injections of bouillon cultures of erysipelas, one or two weeks old, directly into the tumor of the neck. The cultures were of little virulence, and the reactions following the injections slight. There was, however, some improvement, and whenever the injections were discontinued the patient grew worse. Having obtained a virulent culture, inoculation was followed by a very severe attack of erysipelas. The tumor of the neck broke down in part and in part was absorbed, while the tonsil tumor diminished in size, but did not entirely disappear. The general health of the patient rapidly improved without further treatment, and he was known to be healthy and well two and three-quarter years after the last inoculation.

His cases, in which actual erysipelas was produced, showed a most marvelous and rapid decrease in the size of the tumors. Owing to the great difficulty in producing erysipelas and the danger attending an attack, and to the fact, also, that marked improvement followed frequent injections of bouillon cultures, he was convinced that a certain portion, if not all, of the beneficial action was due to the toxic products secured by the streptococcus, rather than to the germ itself. His first experiments with the products were made in 1892, with bouillon cultures treated by heat, 100 deg. C. He reported that the reaction following the injections of this fluid were similar in character to that caused by living cultures, but less severe. The effect upon the tumors was also less marked. Owing to the destructive effect of heat upon most bacterial products, he soon began using cultures obtained from a fatal case of erysipelas, grown for three weeks at a temperature of 37 deg. C., and then filtered. This filtrate was put up in glass-stoppered bottles, a small quantity of thymol crystals having been added, and kept in a cool, dark place.

Laboratory experiments had demonstrated that the bacillus prodigiosus had the power of intensifying the activity of the erysipelas streptococcus. He therefore determined to try the effect of a combination of the toxins of the two germs upon sarcoma.

It was found that cultures obtained from any but a virulent case of erysipelas were of little value. All of his successful cases

were treated with toxins made of cultures from a fatal case of erysipelas.

If in any given case success is foreshadowed, improvement is likely to become evident within two weeks.*

While Dr. Coley advocates the use of this method in inoperable cases of sarcoma as a last resort,† two cases which form the basis of my paper were distinctly operable cases, and in these the method was used to the exclusion of operative measure.

In July, 1894, a male, aged 7 years, fell, sustaining a contusion of the knee. The attending lameness was moderate. The greatest tenderness was located at the upper edge of the tibia. Fixed dressing was used for some weeks, after which the lameness disappeared and the case seemed cured. The patient again fell, which resulted in lameness in the same locality. Plaster of Paris dressing was used until several days previous to December 28, 1894, when for the first time some tenderness was experienced, and enlargement at the upper end of the tibia was observed. December 28 the patient was limping, and swelling existed at the top of the tibia, in front and on each side, in close relation with the epiphyseal line. The swelling was moderately diffused, and very tender, particularly in one spot, with less marked soreness in other parts. The periosteum seemed to be involved. The range of flexion was slightly diminished and extension weak. When the ligamentum patellæ was put upon the stretch by muscular action, pain resulted at the seat of the swelling. The case was looked upon as periostitis. The application of the actual cautery to the skin, with light plaster of Paris dressing, was recommended. It was advised that the patient be confined to bed for a month, a window to be cut in the plaster of Paris for observation, and at the end of this time further treatment was to be considered.

March 25, 1895, the patient again came under observation. He had been running about more or less previous to this date. There had been no febrile reaction at any time. March 28, in order to verify the diagnosis, an incision was made over the diffused swelling in the upper part of the tibia. The bone was somewhat expanded and its cortical structure was in places as thin as parchment. There were openings here and there through

*William B. Coley, M. D., *Medical Record*, 1895.

†Paper read at New York State Medical Association, October 16, 1895.

which a probe readily passed into a cavity. The medullary cavity was much enlarged and filled with a material closely resembling liver in color and consistency, covered here and there with material analogous to old caco-plastic lymph. This was free from odor, there was no evidence of decomposition, and there was an absence of temperature. The material above referred to was all removed by means of a sharp spoon, leaving a cavity $4\frac{1}{2}$ inches long and in width equal to the diameter of the moderately expanded upper end of the tibia. The cavity was packed with iodoform gauze, and with the exception of two or more stitches having been placed in the upper and lower ends of the wound, it was otherwise left open. The leg was dressed in the usual way and a light plaster of Paris splint applied in order to secure the rest of the limb. Specimens of the contents were taken for examination. These were given to Dr. A. E. Halstead for examination, and on April 3 he reported as follows:

“I have examined the specimen and find it a typical giant-celled sarcoma. There is no question about the diagnosis.” A portion of the specimen had also been given to Dr. E. R. LeCount, department of pathology at Rush Medical College, who gave the following report: “The pieces of tissue sent to me to examine show that they were removed from a myeloid, or giant-celled sarcoma, originating from bone. They are very hemorrhagic. There is not only free hemorrhage into the sarcomatous tissue, but large blood spaces are very numerous. I should judge this to be from a rapidly growing tumor. Its malignancy is unquestioned.”

Several questions now presented themselves to me—(1) whether I should amputate the leg, and then use mixed toxins to prevent, if possible, a recurrence of the disease; or (2) to begin at once with the toxins with the view of eradicating the disease, and thus saving both the leg and the patient's life. So much had been accomplished in the inoperable cases of sarcoma by the method under consideration, it occurred to me that by the use of the toxins this operable case might be brought to a successful issue—in other words, that both leg and life might be saved.

I need scarcely remind you that the toxins were used subcutaneously. The first dose, $\frac{1}{2}$ m., was administered April 10, 1895. From this date to April 23 eight doses, ranging from $\frac{1}{2}$ to 2 m., were employed. A mass of granulation tissue had

sprung out from the sides of the opening in the bone. The injections were subsequently made into this without pain. From April 23 to May 27, thirty-four days, thirty-one injections were made, ranging from 1 to 3 *m.* During my absence from the city, between May 28 and June 2, the leg became swollen, and temperature, restlessness and pain supervened. A swelling containing half an ounce of blood was incised by Dr. W. H. Allport, who was temporarily in charge, and the cavity packed with iodoform gauze. After this the patient was much improved. From June 2 to July 10, thirty-eight days, twenty-four doses were administered, varying from 1 *m.* to 7 *m.* June 12, the outer side of the leg was selected for the injections, local anaesthesia being employed. July 10 the toxins were discontinued.

In this case the following chief points were noted in the reaction following the injections.

April 10, after $\frac{1}{2}$ *m.*, first dose, there was elevation of temperature, increased frequency of pulse, some headache, chilly sensation. On the 11th a marked efflorescence was observed on the right side of the leg, less on the other; glands at saphenous opening were somewhat enlarged and slightly tender; patient comfortable and with good appetite; efflorescence extended from puncture made by the hypodermic syringe. April 13, the efflorescence had disappeared. April 15, redness and swelling followed the last injection; some bleeding at the nose. April 16, redness on both sides of the opening in the tibia; part quite tender. April 18, local irritation much diminished; increased frequency of urination. April 21, local reaction diffused, covering almost the whole circumference of the leg and extending longitudinally five inches. Swelling of the soft parts was quite apparent. April 23, a mass of granulation tissue had now grown out of the sides of the cavity in the bone, and into this many of the injections were painlessly used. Drowsiness, thirst, nausea, vomiting and headache were common reaction symptoms. April 27, considerable serous discharge from the wound was observed, but no pus at any time. Chill lasting 20 minutes followed injection. Temperature reached 100.8 deg. during the morning; fell to normal in the afternoon. Patient out for two hours in wheel chair. At the beginning of the chill following the injection, and after other doses not causing a chill,

frequency of urination was a noticeable symptom. The urine on these occasions and for a few hours afterward was quite offensive. May 4, out doors all morning. May 7, feels nauseated, complains of his cheeks aching. The latter was not an uncommon symptom. May 9, pallor, yawning, nausea; pulse 130, temperature 102.8 deg.; went out in wheel chair latter part of afternoon. May 12, maximum temperature 101.8 deg.; pain in the leg, which was slightly swollen and red at site of wound; severe chill; did not sleep, nor did he regain his natural brightness until bedtime. May 13, wound had previously been packed with iodoform gauze. At this date it had so much filled in that the packing was no longer necessary. May 16, the maximum temperature was 101.8 deg. Other symptoms of reaction were yawning, chill, eyes felt sore, one blood-shot. May 25, less reaction during the past few days, but the maximum temperature on this date was 101.8 deg.; no chill; went to sleep at 8:40, perspiring at 9. Owing to the local disturbance above referred to, the injections were omitted from May 27 to June 2. June 3, the toxins were renewed. The maximum temperature following this injection was 105 deg.; severe chill; pain in the head and cheeks; skin somewhat hot; a little delirium; slept two or three hours; awoke free from delirium. Local anesthesia was employed, as the injections were now used under the skin. June 11, very little reaction; maximum temperature 99.2 deg.; but the patient felt cool, and skin was moist. June 12, bronchitis, for which expectorants were used; bleeding at the nose. From June 12 to June 18, reaction slight. June 18, maximum temperature 100 deg., pulse 112; felt a little chilly; skin cool and moist; more than half the circumference of the leg reddened. June 24, wounds made by operation perfectly healed. Sometimes healing went on rapidly, and at other times very slowly. Injections of toxins into the mass of granulations did not seem to spoil the granulations or to retard the healing. June 23, maximum temperature 103.6 deg., pulse 128; dizzy, headache, yawning, chilliness, drowsiness, faintness, vomiting, restlessness; better in the evening; called for food. Patient has been walking with the aid of crutches. June 26, walked a few steps without the crutches. Little or no reaction from June 25 until July 10, after which date the toxins were discontinued.

When the patient left the city for his home at the time the toxins were discontinued, there being no further reaction from their use, and from the favorable condition of the leg at the time, I was led to the conclusion that recovery had practically taken place. I informed the parents that the case should be kept under observation, so that we could renew the remedy in case the part should present, at any time, an unfavorable appearance. I saw the patient a few times between the date above named and November 16, 1895. On the occasion of the last visit the scar seemed somewhat elevated, moderately tense and shiny, and the part beneath the scar somewhat elastic on pressure. I was unable to determine whether these indicated a return of the sarcoma, or whether it was the result of the various contusions which the leg and the part referred to had received while at play. The patient was noted for his activity, on which he exercised little or no restraint out of doors, and the limb had consequently been injured a number of times. The opinion expressed was to the effect that I could not feel certain that the sarcoma was again developing, but I thought it would be safe to renew the toxins for a month, and advised the parents to bring the patient to the city for that purpose. The advice was not taken.

Under the use of the toxins the patient's general health had very much improved. His sleep, which at first was much disturbed, was now all that could be desired, unless, as occasionally happened, the reaction symptoms were prolonged to the early hours of the night. The limb presented a most favorable appearance, and I felt gratified that a cure had probably been effected.

January, of this year, the patient was known to be perfectly well. From April 10 to July 10, 1896, sixty-three injections were employed, the smallest dose being $\frac{1}{2}$ m., the largest 7 m., the latter without reaction. After this date the treatment ceased. The highest temperature was, on one occasion only, 105 degrees (June 3), and the maximum pulse, 132. It will be observed that the chief symptoms that supervene after an injection of the mixed toxins are such as usher in an attack of erysipelas, such as malaise, nausea, and sometimes vomiting, elevation of temperature, increased frequency of pulse, chill.

In another successful case of sarcoma of the leg, below the

knee, published in the *Chicago Medical Recorder*, February, 1895, sixty-three injections were used between September 28 and December 7, 1894. The minimum dose was 2 m.; the maximum, 10 m. Elevation of temperature was not a marked feature, consisting, mostly, of a fraction of a degree, 101.8 deg. being the maximum. During the treatment, pain, frequency of urination, nausea, occasional vomiting and muscular soreness were experienced. Improvement was noticed on the eighth day. This patient was found in good health in all respects last Sunday, May 16, 1897.

CONGENITALLY IMPERFORATE RECTUM, WITH A WELL-FORMED ANUS, IN AN INFANT AT TERM; RESTORATION OF THE ANAL OUTLET (PROCTOPLASTY) AFTER KRASKE'S OPERATION. CONVALESCENCE COMPLICATED BY WHOOPING-COUGH AND PROCIDENTIA OF THE RECTUM NECESSITATING EXCISION. RECOVERY WITH PARTIAL CONTROL OF BOWEL.

BY RUDOLPH MATAS, M. D., PROFESSOR OF SURGERY, MEDICAL DEPARTMENT
TULANE UNIVERSITY OF LOUISIANA, ETC.

On the morning of August 28, 1894, I delivered Mrs. H. W., *æt.* 23, III-para, at term, of an apparently full grown male infant.* The delivery was affected without difficulty. As the child had an entirely normal appearance, no minute examination was made. The anus was well formed and the genitals presented no abnormality on inspection. The next morning I was informed by the nurse in charge that though the baby had urinated freely, it had failed to pass meconium notwithstanding that it had taken the breast. As the external appearance of the anus was normal, I paid no special attention to these parts and advised that the baby be encouraged to take the breast, and, if there was no movement of the bowels by evening to administer two teaspoonfuls of sweet oil by enema. In the evening the nurse reported that notwithstanding repeated attempts, she had completely failed to inject the rectum, the enema being rejected as fast as it was injected; further, the child had grown restless,

* It will be well to note, at this point, that Mrs. H. W. is of distinctly tubercular antecedents on her maternal side, her mother having died with pulmonary tuberculosis. The husband, and father of the child, is distinctly tubercular, with cavities in both lungs. These facts may have some relationship with the existing imperfections in the child.

cried frequently, and the abdomen was more tense and full than usual. I immediately examined the rectum and found that a probe could be made to enter the anus a distance of three-quarters of an inch from the anal margin and no further. The little finger introduced into the anus revealed a complete membranous barrier, and confirmed the existence of an imperforate anal *cul de sac*. It was evident, therefore, that the proctodeum had been fully developed, but had failed to meet the mesenteron or rectal *cul de sac*, and that the distance separating the two remained, as usual, an unknown quantity that could only be ascertained by puncture or open section.

The serious nature of the case was fully explained to the parents and an operation urged that would permit the establishment of an outlet through the normal anus or perineum or of an artificial anus elsewhere, if the exploration of the pelvis revealed such a condition that made the restoration of the intestinal canal at the anal region an impossibility. The parents at once consented. The general condition of the baby was excellent. The abdomen though slightly full and tense did not give evidence of intestinal paresis. The stomach retained a few teaspoonfuls of sweetened water without vomiting.

At 11 P. M., forty hours after the birth of the baby, and with the valuable assistance of my friend, Dr. P. Michinard, and of Miss Little, trained nurse, the operation was begun. No anesthetic was given. The parts were carefully prepared by a general warm bath, potash soap, and local compresses of warm carbolic solution ($2\frac{1}{2}$ per cent.). The limbs were carefully wrapped in cotton and flannels to retain heat and prevent shock by exposure. Notwithstanding the late hour (11 P. M.) sufficient light was obtained by several lamps, so that no difficulty was experienced in the way of illumination. The infant was first placed on the back with the nates raised high, the thighs flexed and projecting beyond the edge of a hard pillow in an exaggerated lithotomy position.

An attempt was first made to determine the depth of the rectal pouch by introducing a long needle, attached to an aspirating syringe, in the direction of the hollow of the sacrum and upward. This was introduced a considerable depth, over two inches, by penetrating the rectal *cul de sac*, which, it must be stated, was not tense or bulged when the child cried. After repeating the

exploration with negative results, the formal perineal section was begun.

A grooved director was then introduced into the anus as far as it would go without perforating the *cul de sac*, and an incision was made in the median line through the posterior anal margin to the coccyx. As nothing appeared in the wound at this stage of the operation which could suggest the appearance of the rectal pouch, the incision was carried higher up to the base of the coccyx in the middle line, and the coccyx, which was cartilaginous, was easily excised, by enucleation, without much disturbance to the soft parts. The removal of the coccyx left an opening which readily admitted the little finger for its whole length into the pelvis and greatly facilitated exploration. The lips of the wound and nates were now fully retracted and careful search made for the missing rectal pouch by dissecting the loose retro-peritoneal connective tissue. After this, a dark, brownish green, soft mass was indistinctly recognized as the occluded rectal pouch. An attempt was now made to seize this mass with hemostatic forceps and to drag it down to the edge of the perineo-coccygeal wound. As this opening was insufficient and it was evident that any forcible attempts at traction upon the mesenteron would end in a premature rupture of the gut and an inability to form a proper artificial anus, I decided to remove as much of the sacrum as would be required to permit of more direct exposure of the pelvic contents and permit the easy introduction of the finger or instruments into the pelvic cavity, with the view of clearing the high rectal end of its attachments, thus permitting me to drag it down to a safe anchorage at the sacral outlet.

To resect the sacrum was a very simple procedure, as the bone was still cartilaginous and could be cut through with strong, blunt-pointed scissors with less difficulty than would be experienced in cutting through heavy card board. With a few clips of the scissors a considerable fragment of the sacrum was removed up to a point corresponding with the highest level of the fourth sacral vertebra. The sacral excision was central at the coccygeal line, but became marginal and to the left as it advanced upward. A fenestrum was thus made in the posterior wall of the pelvis which permitted an easy exposure of the missing bowel and peritoneum. By gently insinuating the index

between the anterior surface of the sacrum and the tissues in front of it, the rectal pouch was sufficiently mobilized to permit it to appear at the sacro-coccygeal opening without dangerous traction. The peritoneum almost completely surrounded the gut, which presented a distended sausage-like appearance, of a dark bluish-black color. The peritoneal covering was particularly adherent at the lower end of the pouch, and here the serosa was unavoidably torn by my manipulations. The rent in the peritoneum was, however, easily closed by a few catgut stitches, before the small intestines had opportunity to prolapse through the opening. It was now recognized that the gap between the anus and rectum was considerable, and that there was no sign of the distinct cord that, according to some observers, sometimes connects the rectal and anal ends and represents the obliterated rectal portion.

The dilated anal extremity of the mesenteron was now gently pulled down until it projected beyond the edges of the wound, and after securing it at opposite points with artery forceps, was freely opened with scissors in the intervening portion. A flood of meconium immediately covered the field, and continued to flow for some time afterward. In the meantime the parts were constantly irrigated with a douche of warm and weakly carbolized water.

When the intestinal contents ceased flowing the parts were again douched, and the suturing of the mucous membrane to the skin was undertaken. It was now noticed that in consequence of the evacuation of the bowel the tension of the rectal pouch had been entirely relieved, and that with very little effort it could be brought down quite low down in the perineal wound, and sufficiently so as to allow its apposition with the natural anus. The question which then arose was whether the original anal *cul de sac* should be removed and the mucous membrane of the bowel substituted in its place. I decided that I would not disturb the original anus for fear of injuring its sphincter muscles. The rectal pouch was sutured to the proctodeal *cul de sac* in the manner shown in the accompanying diagram. The skin over the sacral region was then closed with a few silk sutures, and the mucous membrane carefully united to the skin immediately behind the anus in the ano-coccygeal region.

This plastic operation would appear to be a very satisfactory

restoration of the continuity of the rectal and anal tract, and leaves a well formed anus, but I have since concluded that it would be preferable, in a similar case, to excise the original mucous lining of the *cul de sac* down to the anal margin completely; paying special attention while so doing to respect all the underlying submucous structures with the view of preserving the functions of the external sphincter and levator ani which has been cut through at its coccygeal attachments by the operation. The objection to leaving the original anus *in situ* is mainly that the interposition of the mucous membrane in its posterior segment is bound to act as a wedge of foreign tissue, which may interfere more or less permanently with the efficient contraction of the sphincter.



FIG. 1—Diagram showing cloaca resulting from anastomosis of proctodeum and mesenteron.

- (1) Peritoneal reflection.
- (2) Mesenteron or rectal *cul de sac*.
- (3) Proctodeum shaded to show line of junction with ampulla of mesenteron.
- (4) Cloaca resulting from suture of enteron and proctodeum.

After the operation the child was washed and soothed by a general immersion in a tub of warm water, after which the parts were dusted with iodoform powder and covered with gauze,

Notwithstanding the extent of the operation the baby's condition was excellent. It kept up a continuous cry at first, but it subsequently intermitted with the less painful manipulations and procedures. After the final bath and dressing it went to sleep very quietly, as if nothing had happened. There was no loss of

blood of any consequence. No vessels were ligated, and the precautions taken to keep the baby warm assisted in diminishing shock.

The next morning, August 30, the temperature rose to 100.2-5 deg. It was noticed that the child coughed occasionally. Next day the cough was more marked without any increase in the temperature. After this the cough continued to increase progressively, much to the baby's distress and to our discouragement until, in a few days, it became evident that the child had contracted whooping-cough.

Locally, the wound progressed most favorably. The bowels moved regularly, there was scarcely any local irritation in the neighborhood of the anal margin notwithstanding the frequent contact of feces.*

The whooping-cough, which was epidemic in the neighborhood at the time, and which thus manifested itself in the baby on the *fourth day* after birth, produced a marked effect on the child's general condition, and threatened the final success of the operation.

The frequent paroxysms of violent cough unquestionably precipitated a complication which would at least not have presented itself so soon after the operation. In consequence of the large pelvic outlet in the sacro-coccygeal region and the laxity of the anal orifice from weak sphincter control, the rectum began to protrude and not many days elapsed before three inches of prolapsed rectum remained constantly extruded from the anus. All attempts to control the escape of the bowel failed. The constant protrusion of the rectal mucosa caused irritation and tenesmus, which distressed the child exceedingly and prevented rest.

None of the local applications had the least influence in preventing the recurrence of prolapse and it became necessary to operate. Having no faith in the palliative operations in such a case, I decided to excise the prolapse. Therefore, on September 20, 1894, twenty-eight days after the first operation and again assisted by Dr. Michinard I amputated three inches of protruding bowel by the following method :

*This was due to the watchfulness of the nurse, whose devotion to her charge contributed largely to the final recovery.

The prolapsed bowel, which was deeply congested, reddish blue in color from anal constriction, was thoroughly washed with warm water, soap and a dilute peroxide of hydrogen solution. Very little chloroform was administered. The protruding bowel was seized with artery forceps at its apex, so as to stretch the prolapse to its utmost. The blades of a long Pean forceps were then introduced at three equidistant points up to the anal margin, one blade within the canal and the other on the outside of it. Before closing the blades the whole prolapsed gut was firmly pressed with the fingers to exclude any coil of small bowel that might be lodged in the procidentia. This was not an unnecessary precaution, for the prolapse had a wide base, and the small intestine could be felt under the mucous membrane. After this the forceps compressed the mucous membrane together, and prevented the further descent of the small bowel. Now, holding the prolapsed mass steadily and preventing its retraction with the forceps, we proceeded to the next step, by which we were to secure the elastic constriction of the bowel at the point of division. A long needle threaded with a double elastic thread was made to transfix the prolapsus at the level closest to the skin, where two elastic threads were tied in a manner to constrict the bowel in two hemisections, thus :

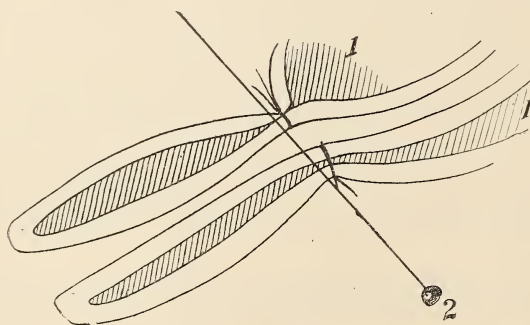


FIG. 2.—Section of procidentia recti after Kraske's operation.

(1) Shaded part indicates peritoneal cavity communicating by diverticula with space in prolapse. The small intestine may escape into these spaces if precaution is not taken to prevent this occurrence by means indicated elsewhere.

(2) Fixation pins to hold ligatures and prevent slipping during amputation.

(3) Elastic (sectional) ligatures.

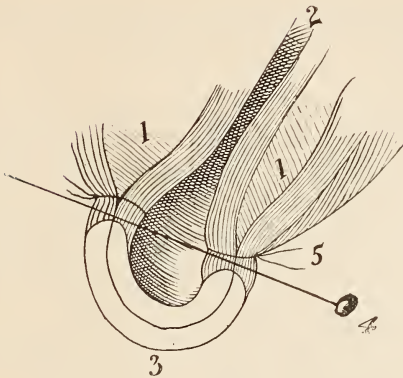


FIG. 3—Diagrammatic section of procidentia recti and method of securing hemostasis and excluding peritoneal infection by fixation pins and elastic sectional ligatures.

- (1) Peritoneal spaces.
- (2) Lumen of bowel.
- (3) Section of prolapsed portion, after amputation.
- (4) Fixation pin.
- (5) Elastic ligatures.

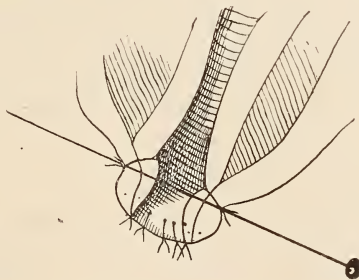


FIG. 4—Diagrammatic section of procidentia after suture; elastic ligature and fixation pin still in position.

After thus securing the base of the prolapse by elastic ligatures, the part beyond the line of constriction was amputated without the loss of a drop of blood, and without danger of injuring any important parts that might accidentally have slipped into the cavities of the prolapse. The elastic constriction also kept the mucous surfaces in perfect apposition and protected the peritoneum from contamination. The mucous membranes were then easily brought together by interrupted silk sutures.*

*The procedure adopted in this case has close analogies with Kleberg's method (*Vide Kelsey's Diseases of the Rectum*, 1896, and *Sajous' Annual*, Section D., p. 22, 1891), though the author was not acquainted with Kleberg's previous application of the principle of elastic constriction before he applied it in this case.

After finishing this operation, we found it necessary to circumcise the child on account of phimosis, which made urination painful.

These operations were followed by no unpleasant consequences, and in ten days the child was entirely well, with the exception of an incipient inguinal hernia which became less troublesome as the cough diminished. It is also worthy of note that, in addition to the anal defects, the phimosis and the disposition to hernia, the child was born a unilateral cryptorchid—one testicle having failed to reach the scrotum.

After this event, the child continued to grow and to do well, though he has always been pale, fretful, and not as vigorous as his other little brothers. Last summer, or about a year and a half after the operation, the baby was brought to the city, and I had the opportunity of examining it.

The child had normally three or four bowel movements a day. It was difficult to ascertain whether there is much bowel control, but the finger feels a certain amount of resistance and contraction when it is introduced a short distance beyond the anal margin. The baby appears to be disposed to frequent diarrheal and dysenteric attacks, which are probably due to digestive disturbances. When these occur, the anal region becomes irritated, and has to be most carefully watched to prevent eczema and excoriations. It is also noticed that under these circumstances there is no fecal control. There is also a tendency to recurrence of the prolapsus recti, though in a much less degree than when this condition first existed. The prolapse now appears to be due to the tenesmus of dysentery. It is probable that the operative treatment will be required if the prolapse continues to increase. If such is the case, I shall advocate a simple rectopexy or anchoring of the rectum by Verneuil's method.

While the child has thus far survived, and is apparently in very fair condition, it is evident that it has had to travel over a very hard road, and that its future path is not likely to be strewn with roses.

COMMENTARY.—After a careful investigation of the literature of the subject, I find that this is the tenth in a list of twelve cases of ano-rectal imperforation in which relief has been attempted by Kraske's method or its modifications. The cases

are reported by Vincent of Lyons, two cases, in 1887; Ceci, of Genoa, 1890; Burrell, Boston, 1891; Chaput, Paris, 1892; Poisson, Nantes, 1892; Czerny, Heidelberg, 1893, two cases; Fochier, Lyons, 1894; the present case, New Orleans, 1894; Elliott, Boston, May, 1896; W. W. Keen, Philadelphia, December, 1896. Of the twelve cases reported only two succumbed to causes directly connected with the operative treatment; and in one of these death was caused by peritonitis due to the infection of the peritoneum with an exploring needle previous to the sacral operation (Czerny's second case).

Eight out of the twelve cases died at variable periods, from a few days to two months after the operation, from diarrhea, marasmus, capillary bronchitis, and other conditions not directly connected with the operation.

Four of the twelve cases had survived up to the time when they were reported. In Burrell's case, four and a half years, after operation; in Poisson's, three years; in the writer's case, two years and nine months; in Elliott's case, six months after the operation. The relations of Kraske's operation to other operative measures intended for the relief of imperforate infants are fully discussed in a paper which the writer has contributed to the transactions of the Second Pan American Congress held in Mexico City, November, 1896.

PROFESSOR KOCH'S NEW TUBERCULIN.

BY KARL VON RUCK, B. S., M. D., THE WINYAH SANITARIUM, ASHEVILLE, N. C.

In the highly interesting announcement by Professor Koch, of his new product which he designates "T. R.," we are told that this product is made from the bodies of the highly virulent tubercle bacilli, by desiccation in vacuum trituration in an agate mortar, and adding distilled water, separating the final residue of the bacilli by the centrifugal process without the intervention of the porcelain filter.

We are told that this fluid, containing 1 per cent. solid substance of the bacilli, causes immunity in guinea pigs, and that its use in human tuberculosis, not far advanced, has given highly satisfactory results.

These results, in obtaining a more effective specific product

for the treatment of tuberculosis from the culture of the tubercle bacillus, appear to coincide with those which have been obtained from experiments in our laboratory made with a watery extract of *dead* tubercle bacilli, in the production of which the bacilli also lost their staining properties, and in which the slight residue showed that we had practically brought the germ in solution by continuous extraction with water and subsequently with alkaline and slightly acid solutions.

While our results do not yet justify the claim of absolute immunity in guinea pigs, they show that the treated animals greatly outlive animals which were infected at the same time, but were not treated; and further that those animals who received the largest amount of the extract are still alive, and apparently in a condition of health, after a full virulent infection seven months ago.

Contrary to the product of Koch, our solution does not, however, act toxically, and tubercular guinea pigs bear large doses (500 milligrams), whereas Professor Koch's product may kill in very small doses (2 milligrams).

That our solution contains the same substance may be accepted from the like therapeutic and immunizing effect, and from the past experience of Koch, Klebs and others in producing immunity from the injection of dead tubercle bacilli, without dissolving them; the difference, if any, would seem to be, at most, a matter of degree.

Although not attended with the excitement with which tuberculin was introduced, yet there are many physicians who are eager to try the new product in the treatment of patients, and, believing that these solutions of the tubercle bacillus and the products of its culture are destined to occupy a foremost place in phthiso-therapy, I would add a word of caution at this time, and point out that we are again doomed to disappointment unless a degree of conservatism is practised which shall prevent the unfortunate experience of six years ago.

I have ever since maintained, and believe I have demonstrated, that the crude tuberculin has therapeutic value both in curative and protective influences, and that the purified products, especially after the method of Prof. Klebs, have the same therapeutic value without the dangers incident to the use of the crude tuberculin of Koch.

The animal experiments in our laboratory confirm that Koch's new product is valuable in the direction indicated by him, but we are by no means ready to apply this new product in the human subject, and should not, until Koch has given us the details of his therapeutic results, which he promises to do in the future, and until other observers have had time and opportunity to confirm Koch's experimental and therapeutic results.

Beyond the short mention made by Koch there is as yet no experience as to the doses of the remedy, which appears to have highly toxic properties, so that even two milligrams are liable to kill a tubercular guinea pig.

Koch states that reactions occur from its use, which for successful results must be avoided; this can only be done by having the patient under the constant observation of an experienced observer. Just as we saw disastrous results under excessive doses of tuberculin, so we are liable to experience them again with this product, and in fact we are more liable, since the toxic properties are greatly in excess of crude tuberculin.

There is another element of danger entirely foreign and new, and that is that the new tuberculin is not filtered, and that the remaining bacilli are only separated with the centrifugal machine. We have therefore no absolute guarantee that the fluid we inject does not contain living virulent germs from which it is prepared. This element of danger is much or nothing, according to the degree of immunity obtained from the treatment, and more particularly according to the length of time for which such immunity lasts.

In considering this element of danger we know that the tubercle bacillus when absorbed and deposited in the tissues may maintain its life for months and years, and may thereafter take on activity in growth and multiplication.

Supposing now that we inject virulent bacilli and obtain enough immunity in the patient so that for the time he is protected against his own and the injected bacilli, if this immunity is only for a short time or lasts for a shorter period than the germ may remain alive, although dormant and inactive on account of the temporary immunity, then we are liable to renewed activity of the bacilli in the local tubercular process, for which we employed the treatment, and in addition to new tubercular developments in the localities where the injected bacilli have become arrested.

This looks to me to be a very serious question, and the consideration of it absolutely stays my hand in making such an injection in the human subject, at least, until we shall know much more about the matter than we now do, and until a method shall be found to avoid this danger.

Although Koch believed that the dead tubercle bacilli are not so readily dissolved, or are changed chemically so that a less efficient solution is obtained, the former belief is not justified, inasmuch as we have accomplished the solution of the dead germs, and the latter position seems to be contradicted by the fact that Koch himself produced immunizing effects from the injection of the dead germs and gave up their use chiefly because he failed in dissolving them, without which the absorption was extremely slow and attended with formation of abscess at the point of injection.

The value of the solution of the dead tubercle bacilli as prepared in our laboratory is attested by the animal experiments which we have made with this solution after filtering it, so that there is no danger whatever of even a dead tubercle bacillus being present in the fluid.

From these considerations it seems to me that more experience is wanted with the products, both chemically and experimentally upon animals, and efforts should be continued for a method which insures the separation of any possibly present germs from the new tuberculin of the virulent culture and in the production of satisfactory therapeutic results from the solution of the dead germs, and that we are not ready as yet to employ either in the treatment of the human subject.

THE EARLY CHARITY HOSPITAL.*

BY JOHN J. CASTELLANOS, M. D., NEW ORLEANS.

Fellow-members of the Charity Hospital of Louisiana Alumni Association—Waiving all claims to its literary merit, I still experience some pleasurable satisfaction in dedicating to you this modest work. It is the outcome of diligent research. That it is open to criticism, I am fully aware. Personal inexperience and meagreness of material can best account for its shortcomings. Nor can it be strictly considered a history of the Charity Hospital. It might more properly be termed its public or official

*Read before the Charity Hospital of Louisiana Alumni Association, April 13, 1897.

life, reviewed in its relations with the *cabildos* and councils, the provincial governors and the city mayors. Still, some sort of a history was to be written. This I have endeavored to accomplish with such limited means as I could collect and utilize. I have much to thank some of my colleagues, and more especially my distinguished friends. Drs. Parham and Holt, and also Mr. Marks, the ever courteous secretary of the Board, for the kind encouragement and moral support which they have so readily extended me in the prosecution of this work, which has after all proved a labor of love. Just as it comes to you with its many imperfections, let me trust you will now accept it at the hands of an old yet not less devoted fellow alumnus.

1737.

“We should in full justice here consign the humble name of Jean Louis, once a sailor in the Company of the Indies, who, through some small traffic, had succeeded in acquiring what was then termed, in the country, a competency for a man of his class. In accordance with the dispositions of his olographic will he bequeathed, at his death, all he possessed, amounting to 12,000 livres or thereabout, for the founding of a hospital. With these funds,” says Bienville, who reported this fact in one of his dispatches, “a home was purchased from Mrs. Kelly, situated upon a vast location at one of the extreme limits of the city. It cost 1200 livres. The cost of repairs amounting to 2500 livres. The remainder was employed in the purchase of bedsteads and necessary articles, and the balance was held in reserve.”

* * * * *

Let the above be the frontispiece to this unpretentious fabric of a narrative. Surely, none could have been more appropriate. The touching simplicity with which the above statement is worded, the earnest sincerity which pervades it, seems to breathe the spirit of the humble yet zealous pioneer in the ways of charity whose name it strives “in full justice” to rescue from oblivion. Poor “Jean Louis Hospital,” “*Hospice des Pauvres*,” “*Hospital de los Pobres*.” It looms up from afar, in the gray dawn of our earliest colonial history, almost enshrouded in legendary mists, and destined to partake of the vicissitudes of the times. It stands, however, as the first milestone that reveals the existence of the obscure pathway, which has now assumed the vast and commanding proportions of a royal road to charity. Though clad in poverty it speaks in prophetic tones

of the imperishable character of heavenly inspired works. The poor sailor Jean Louis, while he tendered upon his death bed his modest legacy, the savings of a life of painful and diligent toil, little dreamed that he was destined to be the precursor of so many munificent endowers, and that his efforts, humble though they were, were to culminate in the achievement of so brilliant results. But, although the lustre of his generosity seems to have been eclipsed by those who have followed in his wake, why should his name have been so forgotten that its very mention is now a subject of surprise? Why should not a memorial tablet that would "in full justice consign his humble name" to posterity have been affixed, by the side of more privileged benefactors of the Charity Hospital, upon the walls of that institution? The hand that pens a historic line, and fails to grasp the opportunity of redeeming from obscurity, yea of rescuing from oblivion the memory and fame of so hallowed a benefactor, should incur the parricide's penalty, should wither by virtue of its own guilt. Wherefore, upon the threshold of my subject, I have deemed it an imperative duty to do justice to the first benefactor, in fact, to the very founder of our Charity Hospital, prompted by the sentiments, urged by the enthusiasm which the very nature of my theme is calculated to inspire, and hopefully confident of your sympathetic responsive approbation.

I have found it impossible to ascertain with any degree of precision the date of this hospital's foundation. It can, however, be confidently asserted that it took place at an early period in Bienville's second administration. The tone of his dispatches as quoted in the above statement would justify a surmise that he therein alluded to an event long past, to be recalled to memory, to be consigned to posterity. As he took his final leave of the colony in the year 1724, the foundation of the Jean Louis Hospital must have antedated, by many years, the above statement, which was written in 1737. Nor should that institution be confounded, as it has been done by the distinguished historian, Charles Gayarré, with others, long before and afterward established, which were partly civil and military, one of which bears special historic interest, from the fact that it had been committed to the charge of the Ursuline nuns, upon their arrival from France. It was situated at the corner

of Old Levee, now Decatur, and St. Ursula, now Ursulines streets.

The primitive Charity Hospital, as built by Jean Louis, and subsequently rebuilt by Don Andres de Almonester, stood on the west side of Rampart street, upon the square bounded by St. Peter and Toulouse streets—"a une extrémité de la ville"—i. e., "at one of the extreme limits of the city," according to Bienville, or as Miro himself more explicitly specifies, "upon a portion of the grounds allotted to the city's fortifications"—"*el terreno en cuestion es parte del que corresponde a las fortificaciones de la Plaza.*" The topographical conditions of this site were far from favorable. The grounds upon which the hospital stood were low and marshy and therefore insalubrious. The parapet closely invested from the rear and the pentagonal forts, or bastions, obstructed on either side most of the road that bore the pretentious name of "*La Rue du Rempart.*" The measurements of the lots were defective and their boundaries ill-defined.

This fact, many years after, gave rise to litigation with Mr. Milne, Mme. Bermudez and the Basin Navigation Company. Their irregular frontage, also, extended far out into the street, and occupied much of that side of the present Rampart street. Hence, in 1812, when by a Council ordinance recourse was had to expropriation, in order to allow a width of 100 feet to that street, and lay out a "promenade" or avenue upon it, much of the fronts of the hospital's lots were retrenched. This accounts for the comparatively deficient depth of all the blocks on the west side of Rampart street, from St. Peter up to Canal street. With regard to its importance and its range of usefulness in those early times, when the city's population hardly numbered 5000 inhabitants, this institution could not have been insignificant, if we are to judge from the earnestness which the cabildos and governors displayed, while discussing its interests. A large majority of the early colonists consisted in penniless, in fact reckless adventurers. Allured by the fallacious inducements held out by Law's Mississippi or West India Company, they stranded upon our shores where hardship and privation awaited them, and where the yellow scourge was sowing the seed for future deadly harvests. There can be no doubt but what the number of destitute patients, who flocked to the hospital must have been proportionately high, when compared to

the city's population; and that under the circumstances this institution must have done effectual service. It was, however, doomed to be destroyed by the hurricane of 1779, after having successfully resisted that of the preceding year. Quoting from Miro—it was converted into a heap of ruins, its kitchen and storehouse alone left standing. These were subsequently utilized and made to accommodate sick patients, "for," says he "the public should always be entitled to some consideration"; and, still further describing the consternation then prevalent in the city, from these oft-repeated calamitous visitations, "many sick paupers are now wandering through the city, in quest of shelter and succor, and are hourly exposed to perish upon the very streets, or in some obscure by-corner."

So universal was the distress then experienced in this city that none of its inhabitants were able to offer the slightest assistance to the forsaken patients. Lengthy and frequent were the conferences then held between the cabildos and the Governor looking to the adoption of relief measures. Still no relief was tendered; all efforts proved unavailing. Strange to say, in the course of the correspondence that ensued, in the very midst of the praiseworthy demonstrations of the cabildos in behalf of their unfortunate fellow-citizens who now looked up to them for help, there seems to run a vein of ill-disguised animosity against their rulers, which they now betray in petty questions of jurisdiction in connection with the hospital. Be this what it may, their efforts in that direction were exerted at a very untimely hour. The hospital had been destroyed and lay prostrate upon the ground. Its administration was powerless to act and might have been considered disorganized. Why then all this waste of time, why their complaints, about the director's failure to send in his accounts and such like trivial remonstrances? Why not yield to the promptings of duty and conscience and actively set to work in assisting the needy? Well did they deserve the Governor's admonitions, which amounted to a rebuke. His alone, and not theirs, was the authority to control the hospital. It mattered little what had been under the French rule. They had, in former years, attempted to arrogate powers; had been convinced of their error, and now seemed bent upon a similar course. These among other remonstrances were set forth by Bernardo de Galvez in firm, unequivocal terms, yet blended with

that suavity and dignified courtesy which were the characteristics of the illustrious Spaniard. This incident, unimportant though it may at first appear, may serve to illustrate the spirit of the people in those colonial times, and more especially their unrelenting efforts to reassert their attachment and their claims to former observances and laws peculiar to the French domination. Hence the oft-repeated debates upon matters of jurisdiction in religious as well as political questions, we so often meet with in the early history of Louisiana. Nor should we marvel at this anomalous condition of popular sentiment. The abrupt change of flag and domination that had just taken place in the province of Louisiana, bridged and smoothed over by no intermediate transitional period that might have offered heretofore French loyal subjects the opportunity of some preparation previous to being converted into full-fledged Spaniards; the imperative dictum of a treaty of Paris, before which the forsaken French colonists were made to bend their unwilling necks or else incur the executory process of an O'Reilly's drum-head court-martial sentence, had left them little or no leisure to adapt themselves to the actions of the Spanish laws and customs, as yet unfamiliar to them or else ill according with their national temperament. Travestied though their Christian names had been into Jean Bautista, Francisco Maria, etc., still the family names which the members of the cabildo claimed with pride, attested an uncompromising French ancestry. True, the new Spanish rulers had endeavored to ingratiate them by bestowing upon them honors, lucrative office and high-sounding titles, and they, in all sincerity, had in return striven to be loyal Spanish subjects, yet the blood of old Gaul still coursed through their veins, and would time and again struggle to reassert its national idiosyncrasies. The rejoinder of Bernardo de Galvez was subsequently supplemented by the Governor *ad interim*, Don Estevan Miro, who refutes more at length the several objections advanced by the cabildo, and repels the insinuations of the Procurator General, Don Francisco Maria de Reggio, and the Royal Ensign, Don Pascalis de la Barre, about "the unfair, stealthy, clandestine and despotic methods which (they claimed) the government had resorted to in the election of officers for the Hospital"—very strong language indeed for loyal subjects. With a rebuke,

tinged with sarcasm, he alludes to the opposition which they have systematically organized against a would-be public benefactor, Don Andres de Almonester y Roxas, formerly a war clerk and civil notary (*Escribano de guerra y de Hacienda*). This wealthy old gentleman of noble pedigree, moved by the sight of general distress, caused by the late hurricane, and desirous of employing his wealth in works of public utility, had spontaneously offered to rebuild the hospital at his own cost, and to appropriate a yearly revenue for its support. Through inadvertence, or very likely yielding to the promptings of his thrifty and provident disposition, he had inserted a clause in his letter of application, in which he reserved to himself the privilege of making use of some of the ‘debris’ or remnants from the wreck of the old hospital as building material—to aid in the construction of its successor. This unexpected restriction from a man who had offered the princely sum of \$114,000 for rebuilding the hospital naturally provoked laughter, and lent to his opponents in the cabildo, the most powerful weapon that can be wielded against a foe, that of ridicule.

Miro, however, in advocacy of Don Almonester, expostulates in the following terms: “Indeed this provision of Don Almonester can not furnish much assistance to his costly undertaking; but why all this astonishment at the disposal he has thought proper to make of these building materials? And why should this worthy almsgiver be looked upon in so questionable a light? If, at the time when the hospital was still standing, some one would have offered to build an annex to it, would any objection have been made, had one of its walls looking on the improved side been utilized in the said construction? Be it what it may, I can not view him in any other light than that of a fellow-citizen eagerly bent upon performing a charitable work, and a public benefactor worthy of the highest praise, so much the more as he comes forth, holding out a most lavish offering for the reconstruction of the hospital, which, we must confess, would have proved a very difficult undertaking at the present time. Having so long delayed in applying for aid for the reconstruction of the hospital, it is not less surprising that you should have taken this matter in hand at the very time when unexpected assistance is being tendered from other quarters, and which might

possibly be withdrawn were I to acquiesce in your pretensions to have this worthy gentleman to appear before you, and beg your leave for the accomplishment of a work of public utility.”

Having secured the king's consent, Don Almonester, in 1782, consistently with his offer, undertook the construction of the “New Charity Hospital of St. Charles,” “of San Carlos,” so entitled in honor of the then reigning monarch under whose protection it had been placed. Completed in 1784, it stood upon the site of its predecessor, a commodious, substantial edifice, built of brick and mortar, surrounded by suitable dependencies, and provided with a chapel. Some historical importance is attached to this chapel. “In 1785, at the death of King Charles the Third of Spain, and upon the advent of his successor to the throne, not a single house of worship, save this modest church, was left standing in the city, so devastating had been the hurricane of 1779.”

In order to celebrate the Requiem Mass, and subsequent religious ceremonies, resort was then had to the little Chapel of Almonester's Hospital. Thus far Almonester had accomplished his ends, had faithfully fulfilled his promises, and this hospital was doing good service. Well should he have expected to reap the harvest he had sown with so broad and generous a hand. But unfortunately he had not completely disarmed opposition and new trials awaited him. Miro, his devoted friend and advocate, was no more Governor; he departed for Spain. Baron de Carondelet, his successor, was a stranger to the colony, and did not appear to share his predecessor's fond partiality to Almonester. The latter's dispositions in the administration of the hospital were disregarded, his orders countermanded and a strife for power was soon set on foot; all of which I must not anticipate, as it furnishes matter for the following pages. Suffice it to say that the outcome of that struggle for supremacy was the founder's dispossession of all controlling power over his own hospital. Almonester, however, by this time had entered the *cabildo* as *Regidor Perpetuo* (Life Councilman); had been awarded the title of Royal Ensign by the King, and ranked as Colonel of the Militia Battalion of the city. He had wasted no time in seeking redress. He had written to his King, fully exposing his grievances. Thus matters stood in October, 1793, when the members of the *cabildo* convened in their “*Salas Capitulares*” were

startled by the reading of an address from their Lordships the Governor and Intendant of the Province, which inclosed a duplicate of a *real cedula* by virtue of which the Royal Supreme Council of the Indies makes known that they have approved the foundation in this city by the Regidor Perpetuo, Don Andres de Almonester y Roxas, of the "New Charity Hospital of San Carlos." A duplicate of the *real cedula*, dated April 13, 1793, which is the original charter of the Charity Hospital, was also read declaring Don Andres de Almonester y Roxas to be the founder, patron and endower of that institution. Having heard the above the members of the Spanish Council proceeded at once to the compliance of certain forms prescribed for the occasion, which might have lent some impressive solemnity to the occasion had they been coupled with sincerity. As it is, we can not but smile upon this display of allegiance as the enactment of a farcical ceremony. They signified their readiness to obey the royal mandate, and pledging to henceforth consider Don Andres de Almonester y Roxas as patron and founder of the Charity Hospital; they then kissed the sacred documents, and placed them upon their heads, "as is done with a letter from the King, our lord and natural master." Whereupon, and as if intending to confirm the misgivings above mentioned, Jean Baptiste Sarpy, then Attorney General Syndic, stepped forth, and, pleading his ignorance of the tongue in which they had been written, asked to be allowed to examine into these documents; and whereas, the special nature of his functions made it imperative upon him to inquire with no little scrutiny into whatever interested the poorer classes, he likewise begged permission to address a few remarks to the cabildo at its following meeting, which request was readily granted. This unexpected interposition of the Attorney General Syndic, though it might have appeared calculated to cast a damper upon this feast of loyalty and to belie the pledges of submission still fresh upon his lips, was not, however, altogether inopportune. At all events it was honestly meant. His subsequent remarks might also, in some particulars, be considered captious. Almonester sarcastically qualifies them as an attempted display of shrewdness. Be they what they may, they nevertheless foreshadow the many vicissitudes, the trying ordeals which our hospital was subsequently to encounter. His bold-

ness in taking issue upon certain dispositions made by Don Almonester and sanctioned by the King himself bespeak an uncompromising honesty of purpose, a wise foresight, and an unfaltering devotion to the cause of suffering humanity. Don Almonester had offered to appropriate as a perpetual revenue to the hospital he was about to build, the rents of stores in the basement of his residence on St. Peter street, and had convened a commission of his own selection to verify his estimates. This commission had reported favorably; had considered the \$1500 yearly revenue an adequate sum for the support of the hospital. This was the *questio vexata* upon which the whole discussion turned and upon which the Attorney General based his remonstrances, which I will now quote: "At a meeting held November 25, 1786, for the special purpose of inquiring into the condition of the endowments it was agreed that the rental of the buildings appropriated to the hospital, and estimated by the donator not only reached \$1500 but even exceeded that figure. Whereas, in fact, it did not exceed \$1248. But, still, admitting the preceding estimate to be accurate, it does not less stand true, from past experience, that despite the wisest and most economical management, the above amount of \$1500 has proved inadequate to yearly provide for the maintenance of the twenty-four beds that have been tendered in the endowment. If, therefore, the above endowment, admitting the estimate to be correct, has so far proved insufficient to provide for the maintenance of twenty-four beds as tendered, we are at a loss to understand how the additional charges can be met which are specified in the dispositions submitted by the founder in his letter of application, and subsequently sanctioned by His Majesty. The additional appointments or a superintendent, chaplain, physician, besides a host of employees, will call for a supplementary outlay. Meanwhile the overconfiding public will be lulled with the expectation that the founder, impelled by his wonted generosity, will, during his lifetime make ample provision for his hospital's support. But, be it not forgotten, this institution will surely outlive its founder, and then, as at present, the sick will continue to flock hither, only to realize the lack of former liberal assistance, nor should you presume upon the aid of public charity; the founder's accredited wealth will justify the conviction that he would not, at his death,

have left his hospital unprovided. Hence will charitably inclined persons seek other quarters wherein to contribute their alms. The reasons I have set forth will deserve your most careful consideration. Let me trust that through our joint efforts, while we voice the prayers of the destitute, family-burdened, suffering classes in our community, the patron and founder of this institution will vouchsafe to grant it further assistance, and thereby crown and insure stability to an achievement which should ever shed undiminished lustre hereafter in time. Let him heed the entreaties of the unfortunate beings whose doleful lament it is now in his power to convert into joyful exultation by the bestowal of still more lavish benefactions which would constitute him their permanent protector." Then, very significantly does Jean Baptiste Sarpy break off from the above pathetic appeal—reassuming his previous aggressive tone: "In the contrary case, it behooves you to adopt measures which your judgment will dictate; still, without prejudice to the public cause."

(Signed)

"JUAN BAUTISTA SARPY.

"*New Orleans, December 13, 1793.*"

[TO BE CONTINUED.]

Clinical Report.

DOUBLE PNEUMONIA FOLLOWING INFLUENZA. RELAPSE. RECOVERY.

BY S. M. FORTIER, M. D., NEW ORLEANS, LA.

Relapse in pneumonia is of such rare occurrence that Osler and others doubt the recurrence of the inflammation. Osler speaks of a fall in temperature on the seventh or eleventh day, followed a day or two later by a sudden rise which will persist for about ten days. This he considers an "anomalous case of delayed resolution." He says that Wagner, in an experience of eleven hundred cases, "met with only three doubtful cases." During my connection with the Charity Hospital as an interne and subsequently as one of the house officers, covering a service

of over four years, I had met with only two cases. It is impossible to state in what ratio these occurred, as no record of them could be found in the hospital reports. The third case occurred in my private practice.

Miss —————, aged 17 years, was first seen by me on the evening of January 8. She had been ailing for some time, for two weeks she had a capricious appetite, restless nights, a languid feeling, listless, at times suffering acutely with cephalalgia. At this time her face was flushed, eyes bright, pulse accelerated, temperature 102.8 deg., tongue coated and a short hacking cough. Examination of the chest revealed the presence of catarrhal symptoms with rhonchi in larger bronchial tubes, especially marked on right side. No evidence of pulmonary complication. Patient was put to bed. Calomel and soda were ordered to be given at once. A mixture containing depressing expectorants was also prescribed. Patient had a comfortable night. Temperature and pulse were found normal the next morning. Notwithstanding her urgent entreaties it was deemed advisable to keep her in bed that day. The following morning she was allowed to get up, with strict injunction not to leave the house. My orders, however, were disregarded.

Upon the evening of the eleventh I was requested to call at the house to see my little patient, who was suffering "with pains all over the body," especially in the region of the chest, and had a "bad cold." Temperature at this time 102 deg., pulse 134, respiration 22.

Physical examination of chest showed an alteration of all normal sounds, more marked on the right side. Quinine, gr. 2½, phenacetin, gr. 2½, were administered every three hours. At midnight I was summoned in great haste to find her with a temperature of 104.8 deg., great distress, frequent pulse and shallow respiration. Physical signs: Inspection—exaggeration of respiratory movements in consequence of the dyspnea present; palpation—vocal fremitus increased over both lungs, more on right side, especially at base; percussion—altered resonance over both lungs, dullness as we approach the bases; auscultation—dry râles at apices, bronchial breathing at bases, no moist râles. Complains of severe pain in right side, radiating throughout the chest toward the sternum. Mustard and linseed meal poultices were applied and kept on through the night and

following day, to be replaced by the oiled silk jacket. Temperature very obstinate and reduced with great difficulty, only for short intervals. A course of stimulation was immediately adopted and vigorously pursued until convalescence was established. This consisted in the exhibition of strychnin sulphate $\frac{1}{30}$ grain, normal liquid digitalis (P. D. & Co.) 5 minims, milk and milk punches every three or four hours. Lowest point reached in temperature during the day was 100.6 deg.; this occurred at 10:30 A. M.

I realized that I had a grave case of influenza and communicated my fears to the mother. On the morning of the 13th, at 1:50, she complained of an exacerbation of the pain in her right side, aggravated by coughing, a sense of chilliness, dyspnea, increased by slightest exertion, anxious expression of countenance, cheeks cyanotic, eyes glistening, *alæ nasi* move violently; pulse almost imperceptible; accessory muscles of respiration are very active; extremities cold, while skin of neck and head is burning hot. I was induced to believe after careful observation of the patient, together with a consideration of the symptoms already noted, that I had a case of pneumonia. An examination of the lungs did not prove this.

Death from heart insufficiency seemed imminent. Mustard was applied to the extremities, hypodermic injections of nitroglycerin, grain 1-100, and brandy were administered, and repeated in thirty minutes. The body was rubbed briskly with brandy.

Not until thirty minutes had elapsed did our efforts prove successful. Temperature remained high all night, rising to 105 deg. at 10:30 the following morning. Physical examination of the chest showed an extensive inflammation of entire right lung, dullness on percussion, increased vocal fremitus and resonance, bronchial breathing. Left lung also involved, but to a less extent. Sulphonal (5 grs.) was sufficient to quiet the extreme restlessness, and induced a sleep of four hours.

January 14-15. Temperature excessive; pulse very weak. At 2:15 A. M. (15) temperature, 100 deg. (phenacetin had been given); pulse, 168; respiration, 48; 2:45 A. M., temperature, 104; 6:30 A. M., 106.4, reaching a maximum of 107; at 2 P. M. pulse, 137; respiration, 44. Nutritive and stimulating enemata were ordered every six hours. Patient shows an idiosyncrasy to the

use of alcoholics, causing a vaso-motor paresis. This is evident from the cyanosis that occurs twenty minutes after the administration of the enema. Pulse weak and irregular, had a "hard chill" lasting three minutes. Slept about one hour during night, delirious for the succeeding forty-eight hours; the temperature ranged from 103.8 to 106; pulse, 134; respiration, 48. Physical examination of lungs—entire consolidation of base of right lung, crepitant râles, tubular breathing. Same conditions were observed on left side, but in a very small area. Phenacetin had little or no effect on course of temperature.

January 16, 5:50 P. M., temperature, 105.2; pulse, 134; respiration, 44. Hot mustard foot bath lasting ten minutes reduced temperature slightly. Temperature continued high until 9:30 P. M., when a fall of 3 deg. was noted. 12:15 M., temperature, 105.2; mustard foot bath; pulse waning. Enema of hot saline solution, nitro-glycerin, 1-100 grain. Gradual decline in temperature reaching the lowest point on January 18, at 8 A. M.; temperature, 99.2; pulse, 114; respiration, 40.

Nurse's Report.—Passed a very restless night; more quiet toward morning. Slept about half an hour. Delirious on awakening. Slept about three-quarters of an hour; awakening with severe pain in region of right scapula. Pain relieved by mustard plaster. Small stool entirely mucus. Temperature vacillating between 99 and 100, when it gradually fell to 98. Delirium active on January 23. Lungs resolving; râle-redux present, dullness disappearing; broncho-vesicular respiration having succeeded the tubular variety. January 24, complains of a stabbing pain in the right side. Rigors. Temperature, 101; pulse, 94; respiration, 29. Physical examination: Left lung still in process of resolution. Right lung dullness on percussion, vocal fremitus and resonance increased. Tubular breathing. Broncophony. Fever did not exceed 104 deg., and on the 28th, temperature, pulse and respiration were normal. Right lung in a state of resolution.

These symptoms indicated that pneumonia had undoubtedly recurred in the right lung. Judicious sponging proved beneficial and comforting, as she would fall asleep while being sponged. The temperature would be reduced, character of respiration improved and restlessness allayed. The most active delirium occurred toward the end of the disease. Chloral, gr. x; brom-

ide, ℥ss, by enema, and repeated every hour until four doses had been administered, had but little effect. Day by day this symptom became less intense, and with a return of strength disappeared. Warm alkaline drinks were ordered, with the view of aiding the expulsion of the viscid sputum. Absolute rest was enjoined; all extraneous effort avoided; liquid diet ordered. The sleeplessness and delirium that occurred in the course of the disease were distressing in the extreme. The cough was frequent and harrowing, pain intense, relieved by counter-irritation in the form of mustard plasters. The hyperpyrexia was the worst symptom, and as fever has a tendency to cause cardiac exhaustion, and as to heart failure is so commonly attributed one of the causes of death in pneumonia, it was by the greatest effort that the temperature was reduced to a reasonably safe point. It was with extreme caution that sponging was adopted as an antipyretic measure. Inasmuch as heart failure seemed imminent, it was feared that the cold would only increase the depression. During the early convalescence light diet was permitted. Later, it was difficult to satisfy her appetite. The points of interest in the case: Rapid extension of bronchitis after exposure; persistent high temperature, reaching a maximum of 107 deg., but not until both lungs were consolidated, this condition declining in twenty-four hours, with progressive resolution, followed by a chill, with pain in side and a reconsolidation of right lung a few days afterward.

This case was not one of delayed resolution, but was a return of an acute inflammation, with all the accompanying signs of consolidation.

Author's Abstract.

ON THE USE AND ABUSE OF ERGOT IN OBSTETRICS.*

By THOMAS MORE MADDEN, M. D., F. R. C. S. E.—M. A. O. *Honoris Causa*, Royal University, Ireland; Obstetric Physician and Gynecologist to Mater Misericordiæ Hospital. Consultant and Ex-Master, National Lying in Hospital; Dublin, etc.

In few, if any, respects are the changes that have been affected since my student days in obstetric practice more marked

*Abstract of a paper read in Obstetric Section, Royal Academy of Medicine, Ireland, April 23, 1897.

than with regard to the employment of ergot and its preparations. At that time this drug was very generally administered, and then too frequently with little discrimination, in the majority of labor cases. A few years subsequently a reaction which was inevitable against such a malpractice set in. This has continued to operate and increase up to the present period, when (the pendulum of professional opinion having now swung back to the opposite extreme) comparative desuetude has replaced the former abuse of the most potent ecboic at our command in many cases of powerless labor. That result has, I think, been largely fostered by the teachings of some recent authorities, by whose writings a trend of modern opinion distinctly adverse to the employment of ergot during labor has become established.

In the following remarks I propose to consider briefly whether the radical change thus effected is correct in theory and advantageous in practice or not? In the first place it may be observed that some of the objections now urged to the employment of ergot in obstetrics in those text-books by which students and junior practitioners are so widely influenced are apparently founded on the investigations of Kobert and other recent scientists who in the laboratory have examined the chemical constituents of this drug and their physiological action on the lower animals rather than on actual experience of the effects of the lying-in room. In this connection, therefore, it may be well to bear in mind that neither the chemistry of ergot nor the distinctive properties of its several components have as yet been definitely determined. Moreover, it would appear to me that the mere dicta of authorities, however eminent, can never outweigh the clinical testimony to the contrary effect of the countless numbers of practitioners by whom preparations such as the fluid extract of ergot and Bonjean's ergotin, both of which, according to Kobert, contain a toxic agent of deadly potency in the case of the lower animals experimented on, have long been used in midwifery practice without any injurious effect when judiciously employed.

The dangers ascribed to the use of ergot during parturition by the writers above referred to include (1) its possible fetid effects; (2) the probability of this drug giving rise to an irregular uterine action, and to occasion subsequent retention of

the placenta; (3) the direct toxic action of the ecboic on the maternal circulation. The first of these objections need not detain us long, as the results of the continued employment of ergot for some time before labor, as recorded long since by my former colleague, the late Dr. Denham, whilst Master of the Rotunda, and more recently and effectively by our president, Dr. Mitchell, are more than sufficient answers.

As to the second and third of the reasons assigned as understood for the non-employment of ergot in obstetrics, I know not how I can more effectually deal with them than by a short reference to my own clinical notes. Having, however, now employed ergot in a vast number of instances in hospital and private practice during the last twenty-six years (within which period I have occupied the position of master of one lying-in hospital, and assistant physician to another), it would probably involve a waste of time and labor, and occupy more space than might be desirous, were I to recapitulate the record of all the occasions in which I have administered this agent. It may, therefore, suffice to submit here a brief statement of the circumstances under which, in a series of 150 obstetric cases, ergot was employed, together with the result to mother and child in each instance.

Abstract of One Hundred and Fifty Obstetric Cases in Which Ergot Was Used.—In eighty of these cases the patients were primiparæ; in seventy, pluriparæ. Of the 150 patients referred to, 148 recovered and two died, viz.: one from septicemia, and the other from a disease that commenced prior to parturition, viz.: typhoid fever.

In ninety-five of the cases the drug was given before the birth of the child, viz.: in fifteen for delay occasioned by inertia of the uterus in the first stage of labor, and in eighty for delay similarly caused in the second stage. In ninety-two of these instances the children were delivered alive, either by uterine action or by forceps; in three they were still-born, and in two of the latter cases, evidence of putrefaction being apparent on delivery, no toxic effect could possibly be ascribed to the ecboic administered a short time previously. Of the ninety-five cases in which ergot was given in the first or second stages, in eighty-six the placenta was subsequently expelled by the natural efforts. In nine its removal had to be assisted or affected by the obstetric attendant, viz.: in four cases for "morbid adhe-

sions, in four for atony of the uterus, and in one for irregular or hour-glass contraction.

In fifty-five instances the ergot was given after the birth of the child, namely: in twenty-five during the third stage, to hasten the expulsion of the placenta or to prevent flooding; and in thirty immediately after the completion of labor, for the prevention or arrest of post-partum hemorrhage, or for some other reason to stimulate uterine contraction.

Whilst my own experience as just summarized leads to the conclusion that the objections most generally urged against the employment of ergot are to a large extent exaggerated, provided always that this drug be judiciously used, at the same time I for one have certainly no desire to minimize the dangers to either mother or child that may result from its abuse. On the latter point more especially I may repeat that, as I long since observed, under no circumstances should ergot or ergotin be given until the os uteri is either fully dilated or is so dilatable as to allow of delivery by the forceps, if not accomplished within an hour after the administration, or sooner if necessary. Otherwise the unremitting uterine action, which is the characteristic effect of the drug, might greatly imperil the fetal circulation, as I showed by a reference to a series of cases in which the children were still-born from the neglect of this obvious precaution. And therefore it would seem to me as rational to allow a student commencing midwifery attendance to apply the forceps as to permit him to employ ergot without a full knowledge of the principles involved in its administration and the dangers resulting from its injudicious use.

At the same time it should be hardly necessary to remark that the effects, however disastrous, of the abuse of any remedy are no argument against its proper employment. I may, therefore, take this opportunity of stating that in my lengthened experience of the obstetric employment of ergot I have had no evidence of those unfortunate results in any instance in which it was judiciously used and hence I would ascribe their occurrence as a rule to its misuse. Thus, for instance, if ergot be given at too early a stage, or in unsuitable cases of labor; or in the small, insufficient and frequently repeated doses that are now recommended, a condition of irregular uterine action is liable to be produced by which the circulation of the fetus may be endangered, the

dilatation of the os arrested and the expulsion of the placenta delayed.

On the other hand, if ergot or ergotin be administered under suitable circumstances, when the os uteri is sufficiently dilated, and in the full and effectual doses that I have long advocated, the probable result in the majority of cases will be the establishment of that effective uterine action, the temporary cessation of which is the most common cause of delay in the second stage of labor, and the consequent speedy and safe delivery of the child.

Conditions and Circumstances under which Ergot may be Used in Obstetrics.—Judging from the recent literature of the subject, it may be premised that to employ ergot or any of its preparations effectually and safely in midwifery practice, it is essential (1) that the presentation should be cranial or natural, in some breech cases where uterine inertia must be at once dealt with; (2) that there should be no disproportion between fetus and mother nor any other physical obstacle to delivery in the tract. (3) That the os uteri should be sufficiently dilated or dilatible to allow of speedy delivery by the forceps when necessary. (4) That the preparation of ergot selected, and the method and dose in which it is administered, should be calculated to produce the required ecbotic effect.

Subject, then, to the foregoing conditions, ergot may with utility be given before, during, or after the second stage of labor. That is to say, before the full dilatation of a dilatible os it may be administered (*a*) in certain instances of delay from inertia of the uterus in which there is little evident danger to mother or child, or (*b*) risk of subsequent hemorrhage from further protraction of the case. During the second stage it may be used (*c*) in nearly every case of long delay from uterine inertia in which the head presents and the delivery is otherwise unimpeded, or for the prophylaxis then of impending flooding. During the third stage ergot may be employed (*d*) to hasten the detention of the placenta when detained by inertia, or (*e*) for the arrest of hemorrhage. After delivery, this drug may resorted to either immediately (*f*) to check or prevent post-partum flooding, or subsequently (*g*) to produce such tonic and permanent contraction as may seal up the uterine vessels, and so lessen the liability to bacteriologic invasion or sepsis, or (*h*) for the expulsion of clots and arrest of after pains,

and finally, and more especially, in multiparous patients (*i*) it may and should be given after delivery to assist the muscular tonicity of the uterus, and so diminish the liability of subsequent subinvolution.

Method of Using Ergot in Obstetric Cases.—With regard to the preparation of ergot most advisable under the circumstances just referred to, there are almost as many opinions as writers on the subject. Whatever preparation be selected, however, it is obvious, as I may repeat, that it should be judiciously used; then only in suitable cases and in a manner that may speedily and safely stimulate effective uterine contractility. With this view in my earlier experience in the Rotunda Hospital, either a glycerin solution or the extemporaneous infusion of the freshly powdered drug, which, though troublesome to prepare and nauseous to take, is of unquestionable ebolic activity, were commonly employed. These in turn have been replaced by the no less efficacious liquid extract of the pharmacopeia, or by the ammoniated tincture of ergot, or by ergotin, or the more recent preparation such as Bonjean's, Burrows and Williams' tabloids, or by Oppenheimer's ergot, each and all of which I have used with advantage in many instances. At the same time, however, I may confess my predilection in favor of the officinal fluid extract of the British Pharmacopeia. This I, myself, generally in the labor cases above described employ in two drachm, or less, if necessary three drachm doses by the mouth, together with a drachm administered at the same time by deep hypodermic injection in the gluteal region. In the subsequent treatment of after pains, or to secure as firm and permanent uterine contraction as may safeguard the patient against puerperal sepsis or subinvolution, I have generally found drachm doses of ergot given thrice daily in combination with citrate of iron and quinine and tincture of nuxvomica most effectual. To act effectively and safely in any of these cases, however, it need hardly be added that ergot, or any of its preparations, like all other active drugs, should be given only in suitable cases and conditions, at the proper time, in effective doses, and with due precautions.

Communication.

THE STATE BOARD OF MEDICAL EXAMINERS.

Mr. Editor:

At the risk of appearing pessimistic, I wish to be permitted to say a few words with reference to the fallacies and duties of medical examining boards. The State of Louisiana now enjoys the proud distinction of being one of the States of our great Union which have elevated the standard of medical education and the qualifications for the practice of medicine to the extent of securing statutory enactment, requiring those who would practise medicine to first procure from an examining board a certificate of proficiency. To the Louisiana State Medical Society is due the credit for the passage of this act in 1894. The law regulating the practice of medicine in Louisiana prior to that time was a travesty upon justice and a disgrace to the medical profession and to the commonwealth of the great State of Louisiana. The quack and the charlatan flourished on Louisiana soil as the green bay tree. The enforcement of the law passed in 1894 has rid our State of many ignorant pretenders undermining the body medical. There are yet many incompetent doctors practising medicine within the limits of the State under authority of the infamous five and ten year clauses of 1882. The Louisiana State Board of Medical Examiners is composed of true and competent physicians, who, I have no doubt, have done good and faithful work in their official capacity. I have reason to believe that, in the exercise of their prerogative as guardians to the entrance of the medical profession in Louisiana, they have not required as high an average in every instance as is demanded by the standard of the present day. I suspect that in some instances they have been swayed by that feeling of human nature that belongs to us all, and allowed some to pass who were not altogether worthy and well qualified. An individual of large pretensions, who held a certificate from the Louisiana State Board of Medical Examiners, came into my office some time ago, and discoursed in a most learned manner on a case of enlargement of the prostate gland in a female patient of his, and who at the same time had endo-

metritis, suppurative nephritis, albuminuria and diabetes mellitus. He had introduced his finger into her rectum and felt the enlarged prostate distinctly. One kidney was "clean" gone and the other one badly "crippled." Another certificate man was anxious to know what sort of disease pediatrics was, as he had never seen a case, but had often "read about it," and the same individual declared that the urinometer was the best test for albumin in the urine. These men have as little knowledge of professional ethics as they have of the science of medicine, and have been turned loose on the public to practise medicine and to obtain business in their own peculiar way, and they go upon the principle that all things are fair in war. The practice of medicine to them is but a commercial commodity, and their inferior services are as the cheap goods of commerce, and the longest pole gets the persimmon. The honorable and capable physician is placed at a very great disadvantage when brought in contact with this kind of competitors.

As long as medical examining boards continue to pass applicants because they are getting old and they excite commiseration and assume that they can not do much harm on account of the isolation and remoteness of the community in which they propose to practise—just so long will our country be flooded with incompetent doctors, and to young men entering upon the study of medicine there will be a lack of incentive to strive for a high plane of professional attainments. Human health and life are too sacred to be committed to the care and keeping of ignorant and designing pretenders. It is to be hoped that in the future our State Medical Examining Board will guard more closely the entrance to the medical profession in Louisiana. The writer happens to have personal knowledge of an instance wherein our State Board permitted a candidate to pass on account of his advanced age and persistence, who had formerly failed, and was notoriously incompetent. This man with his crooked and devious methods has become the most formidable competitor of the medical profession in these parts. In conclusion, I would suggest that if this state of affairs is to continue the next legislation sought to be obtained may be that *against* medical examining boards.

Respectfully,

F. M. THORNHILL, M. D.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

VOLUME FIFTY.

1844-1897.

Save the years of the civil war, the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL has been in active existence since 1844. Even then the work was only laid aside for a struggle more momentous than that for the elevation of the medical profession.

In 1897 we celebrate our jubilee with the beginning of our fiftieth volume.

How much this means! To have chronicled the stages of progress in a constantly broadening field of science for half a century.

We are patriarchs in verity, for we are the fourth in seniority of medical journals in these United States.

Existence is in itself no evidence of success, else our uninterrupted publication through forty-nine volumes would stamp us successful.

We believe that the standard of success is based on other foundations.

We do not boast of our circulation—though the year past has seen 25 per cent. of increase—for this is a doubtful criterion. We publish no affidavits of our publisher, nor do we vaunt a postmaster's certificate of the amount of postage paid, for the would-be advertiser's edification. We believe that the intelligent advertiser respects our dignity, and realizes that our claim to success needs no verification.

We do hold that careful discrimination in the class of advertisers accepted is a large and potent factor in making a medical periodical meritorious, and that none more than the advertisers themselves appreciate this fact. When the medical press makes itself subservient

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to the bid of any concern which pays the price, the purpose of medical periodic literature is gone.

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Conscientious and exactly scientific collaborators aid in making the original work not only acceptably readable, but of service.

Collaborators.

The JOURNAL is not ashamed of the retrospect. Its editorial management has changed many times since the conception of its existence. Were its founders here to-day, we are modest in saying that we feel that these progenitors in office would give us an approbative smile.

We appear to-day in gala dress, as befits the occasion. We make our best bow, with our collaborating staff, in the frontispiece, by way of both introduction and of celebration. We shall not celebrate our fiftieth anniversary again, and we feel that it is not given to every journal to have a semi-centennial.

Our Jubilee
Souvenir.

In many ways new methods have developed with our added years of life. Our several departments have been created so as to the better cater to our subscribers' food for thought.

Our
Departments.

Our judgment of the tendency of the day has made us drop the final *al* and *e* as superfluous in such words as "pathologic," "acetanilid," and "atropin." Also, to simplify, by abbreviating, diphthong words such as "hemorrhage" and "anemia."

Orthography
Revised.

We may be here but for to-day, but as the sailor pays court to Neptune, should the Equatorial line be crossed—we bow in earnestness to the past of our JOURNAL'S struggles. For ourselves, we write but a line of record for the present effort, promiscuous for the good of our profession, our JOURNAL and our own good name, in the to-morrow, which soon must be yesterday.

Past,
Present,
Future.

Medical News Items.

THE AMERICAN MEDICAL ASSOCIATION met for its semi-centennial anniversary in Philadelphia on June 1, 2, 3 and 4. The meeting was in every way a success, and the registered number in attendance was 2158.

President McKinley honored the meeting at one of the sessions, over which our friend, Dr. Edmond Souchon, presided as one of the vice presidents. A notable coincidence is that at the initial meeting of this association New Orleans was represented likewise by a vice president. Besides Dr. Souchon, the following members of the local profession attended: Drs. W. Scheppegrell, H. S. Cocram, J. D. Bloom, J. N. Charbonnet, M. Hermann and John Laurans. Dr. Geo. M. Sternberg was elected president for the coming year. We are pleased at this distinction conferred upon Dr. Sternberg, who has honored his position as surgeon-general in the United States Army by his various scientific researches in the few years past. The other officers elected were as follows: Vice Presidents, Dr. Jos. M. Mathews, of Louisville; Dr. J. L. Thompson, of Indianapolis; Dr. J. W. Wiggin, of New York, and Dr. P. J. Happel, of Trenton; treasurer, Dr. Hy. P. Newman, of Chicago; assistant secretary, Dr. W. A. Jayne, of Denver; librarian, Dr. Geo. W. Webster, Chicago; chairman of arrangement committee; Dr. J. W. Graham, of Denver. We are glad to note that Dr. Randell Hunt, of Shreveport, was elected chairman of the section of physiology and therapeutics. Denver was selected as the next meeting place. This is in line with the wish we expressed last month, and we think the decision a wise one.

DR. HOBART A. HARE has associated himself with Messrs. Parke, Davis & Co., as their consultant therapist. Dr. Hare's knowledge of therapeutics makes him eminently fitted for the position; this well known drug firm have evidently made a move tending to enhance the utility of their preparations.

The American Journal of Dermatology and Genito-Urinary Diseases is the title of a new periodical edited by Dr. S. C.

Martin, of St. Louis. It begins with a creditable number containing articles from the pens of well-known specialists in the lines for which the journal is intended.

THE PHYSICIANS OF ACADIA PARISH met recently in the progressive town of Crowley, and organized a medical society. The following officers were elected for one year: President, Dr. N. B. Morris; vice president, Dr. L. C. Pulliam; secretary and treasurer, Dr. M. L. Hoffpauir. The society will meet the first Monday of each month, and has adopted a regular fee bill. Another county heard from in the right direction.

THE BOARD OF TRUSTEES OF THE MERCER UNIVERSITY, Texas, have conferred the degree of LL. D. upon Dr. W. A. Adams, who is chief surgeon of the Fort Worth & Denver City Railway Company, and located at Fort Worth.

THE PROGRAM OF THE SECTION ON LARYNGEAL AND NASAL DISEASES of the International Medical Congress, for which the JOURNAL is indebted to Dr. de Roaldes, shows that many well-known specialists will take part, and that already eight leading discussions are announced. In addition to these it is proposed to arrange a joint meeting with some other sections to discuss the serum treatment of diphtheria.

DR. BRASSEUR, EDITOR OF THE *Gazette Médicale de Liège*, an esteemed exchange, has recently been bereaved by the death of his daughter. We tender our sincere condolence.

DR. MARY A. G. DIGHT, formerly of New Orleans, is now in charge of the Woman's Hospital of Philadelphia. The physicians managing and visiting this hospital are almost all women, and the standing of the institution in Philadelphia is evidence of the good work done.

THE NEW ORLEANS POLYCLINIC has recently elected as president Dr. Chas. Chassaignac, who continues to fill the chair of genito-urinary and rectal diseases. A new chair of clinical and minor surgery has been created, and Dr. E. Denègre Martin has been elected to fill it. Dr. Martin has been the chief assistant to Professor Parham for several years, and lectured with credit to the Polyclinic classes during the last session.

MR. H. V. ARNY has been honored by an election to the Professorship of Pharmacy in the Cleveland (Ohio) School of Pharmacy.

Abstracts, Extracts and Miscellany.

Department of Surgery.

In charge of DR. F. W. PARHAM, assisted by DRs. E. D. MARTIN and F. LARUE, New Orleans.

A METHOD OF OPERATION FOR HYDRONEPHROSIS OF WANDERING KIDNEY.

Cramer describes in the *Centralblatt für Chirurgie*, No. 21, 1897, a new method recently carried out by Bardenheuer in the Cologne City Hospital, for the relief of hydronephrosis of a wandering kidney. For some years Bardenheuer had been accustomed to do nephrectomy, but the removal of such a kidney in a case in which there was no other kidney, led him to seek to preserve the hydronephrotic sac. He has often been astonished at the rapidity with which an enormous sac contracted and at the amount of urine, or at least of urinous fluid, which was excreted by the wall of a thin sac, which one naturally supposed had no longer any kidney structure. Bardenheuer is now convinced that the kidney structure in by far the larger number of cases becomes again competent after the relief of the intrasaccular pressure. Weeks after the operation the tumor takes on again the size and shape of the kidney, having become much contracted.

The operation best done will of course depend upon the pathology of the hydronephrosis in the particular case. A frequent cause is valvular formation in the ureter. Bardenheuer in a former case sewed in the ureter at the deepest point of the sac, with excellent result.

In a case operated on several months ago he performed a very simple plastic operation, which it was the purpose of this abstract to describe. The case was that of a woman 32 years old

with a large, movable kidney tumor under the right costal arch. The tumor having been exposed by Bardenheuer's flat door incision, the kidney was easily brought out into the wound and the pelvis found. It was easy to see that a fold or spur existed on the under wall of the pelvis where this goes over into the ureter. This valve or spur was at right angles to the ureter and was evidently the cause of the hydronephrosis. An incision was made, beginning in the wall of the enlarged pelvis on its under side, next the ureter, down through the fold into the first part of the ureter. This incision was then held open by hooks as in the Heineke-Mikulicz operation for pylorus stenosis. The wound was sewed up in such wise that the suture line was at right angles to the original line of incision.

A pocket was then made by peeling up the peritoneum and the kidney placed in its proper position and kept there by a catgut suture carried through to lower end of the kidney and the soft tissues about the twelfth rib. The fatty capsule was carried around the kidney and sutured to the wound edges.

At the time Bardenheuer did this operation he was not aware of the fact that C. Fenger had described a similar procedure.

COMMENT.—This procedure of Bardenheuer and Fenger is a valuable addition to our resources in renal surgery. By this simple plan many a hydronephrotic kidney may be preserved, when its removal, as in the case of Bardenheuer's single kidney case, would be a fatal mistake. The operation is a very simple one, performed now for several different purposes in different regions. The operation is the same in principle as carried out by Heineke and Mikulicz for pyloric (cicatricial) stenosis, by Duke in his operation for restoration of the perineum, by Abbe and others in place of resection in large lacerations of the intestine and may also be done for shortening the serotum in conjunction with Bennett's operation for varicocele.

PRIMARY TUBERCULOSIS OF THE BREAST OCCURRING DURING PREGNANCY.

Edward P. Davis in the *Medical News*, June 12, 1897, after calling attention to the rarity of primary tuberculosis of the breast, reports an interesting case of a young girl admitted to

the Jefferson Maternity November 18, 1896, at that time pregnant seven and a half months. The breast was swollen, firm and indurated in the outer and lower quadrant. She had first noticed the swelling when six months pregnant. A little fluid pressed from the breast at time of admission showed only colostrum corpuscles, but a month later tubercle bacilli were found in the secretion. The woman being anemic and no abscess being discovered, operation was deferred until after delivery and completion of the puerperal period. February 2, the child was delivered with forceps. Recovery was rapid. On March 19, Dr. Keen, with Dr. Davis' assistance, removed the entire breast, resecting also the pectoral fascia with its glands. Incision in the axilla showed no enlarged glands. She rallied quickly and recovered promptly. Gross examination of the tumor showed multiple acinous abscesses and a considerable amount of pus in a hard mass in the upper portion. The microscopic examination of inoculations of agar-agar gave growths of micrococcus pyog. albus after three days. Pus scraped from the abscess wall showed micrococci and tubercle bacilli in abundance. The outer margin of the tumor showed the structure of an adenoma. Tubercle bacilli and micrococci were found in the stroma in abundance.

The adenoma seems to have been the nidus of infection and the source the mouth of a tuberculous individual.

An interesting point is that the infection was limited to the mammary gland itself, and that there was at no time any fever or other reactionary disturbance.

The writer also reports with Dr. Keen's consent another case treated by Dr. Agnew and Dr. Keen in November, 1889. Their clinical diagnosis was sarcoma. The removed gland showed not only tuberculous abscesses, but also extensive tuberculous degeneration of the breast itself.

COMMENT.—These cases illustrate well the difficulty in differentiation between tuberculous disease and sarcoma of the breast and emphasize the importance of establishing the diagnosis by the examination of a piece of the tumor itself beforehand, if possible, or at least of the secretions from the breast. Culture inoculations will sometimes materially assist in finding the bacilli.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, New Orleans.

IMAGINARY PREGNANCY.—At a recent meeting of the New York Obstetrical Society, Dr. Boldt reported the case of a woman from whom he had removed the uterus and appendages, and who, two years later, got an idea that she had become *enceinte*. So strong was this impression that she finally pretended most of the subjective symptoms of pregnancy: morning sickness, swelling of the breasts, the development of colostrum and enlargement of the abdomen.

HYSTERECTOMY FOR CANCER.—At the February meeting of the same society, Dr. John Byrne, in opening the discussion of a paper read by Dr. J. E. Janvrin, said that, in his opinion, no reliance whatever could be placed on statistics of vaginal hysterectomy for cancer; that “where they were not of a nature sufficient to condemn their life-curtailling operations, they were either worthless, misleading, or Delphian in their ambiguity.” The doctor expressed surprise that the profession had not given thorough attention to his (Dr. Byrne’s) method of high amputation of the cervix with the electro-cautery. He believed that no other means or method could lay claim to such results as those obtained by his method. The doctor concluded his discussion by saying: “I have watched very carefully these operations by various operators, not only here but abroad, and I must confess that the operation of vaginal hysterectomy—I do not care in whose hands it is done—has ever struck me as a most unsurgical operation.”

Dr. Coe here remarked that he had been won over almost completely to Dr. Byrne’s views, and that since last fall he has referred to the doctor almost every suitable case he had at the cancer hospital. He had always been impressed with the fact that mere removal of the organ was a small part of the operation; that what was desired was destruction of the outlying foci of disease, and that was exactly what Dr. Byrne’s method aimed at.

IN A PAPER ON CURETTAGE AND PACKING THE UTERUS, read at a recent meeting of the Woman's Hospital, New York, Dr. John Duncan Emmett denied the popular medical belief that endometritis is an important, or even a common factor in inflammatory diseases of the pelvis. He claimed that it is pure assumption to claim that metritis and perimetritis are secondary diseases in regard to acute endometritis. "In chronic endometritis, as it is called, pathologic conditions external to the canal are still more easily recognized and are universally found." He believed endometritis, as a distinct disease, to be rare. He considered uterine leucorrhœa—that symptom usually looked upon as pathognomonic of endometritis—to be "nothing more, in a majority of cases, than a symptom of some form of inflammation external to the endometrium, usually external to the uterus as well, and as significant alone of an effort on the part of nature to find relief from a blood stasis." He believed that theory explained the cures of leucorrhœa and pelvic pains frequently obtained by applications of astringent drugs to the vaginal vault, without introducing remedies into the uterine canal. Unless in cases of retained placenta or secundines, acute sepsis from operations, or in acute gonorrhœal infection, he stated that he had never seen, in either his own practice or in that of others, a case of endometritis *cured* by curettage. "The symptoms have always steadily returned, after a greater or less interval, when local treatment had ceased with the curetting." He reports the following note from Professor Welch on endometritis: Many cases of so-called endometritis are characterized chiefly by non-inflammatory alterations of the glands, such as growth of the glands, atrophy of the glands, cystic dilatation, etc. Dr. Emmett evidently tried to show that endometritis is more frequently a consequence than a cause of inflammation of the adjoining organs, and that endometritis pure and simple more frequently exists in the imagination of the gynecologist than in the womb of the patient.—*Am. Gyn. and Obstetrical Journal*.

SERUM IN PUERPERAL SEPSIS.—Philadelphia has recently been giving some attention to the use of antistreptococcic serum in the treatment of puerperal sepsis. In the May number of the *American Journal of Obstetrics and Diseases of Women and Chil-*

dren, we find report of three cases treated with the serum by Dr. Barton Cooke Hirst, one of which died, the second he believed would have died had he not abandoned the serum for the use of nuclein, and the recovery of the third he believed to be due more to the escape of a large quantity of pus *per vaginam* than to the two injections of serum that were given.

Also a report of one case successfully treated by Dr. Richard C. Norris. The doctor injected ten cubic centimeters of Marmorek serum the first day, then five cubic centimeters twice the following day.

Dr. Edward P. Davis reports three cases, one of which recovered, and the others died. The treatment was combined with intra-uterine cleansing. The case that recovered bore strongly the appearance of being sapremia.

Dr. J. M. Baldy reported one fatal case, the temperature rising to $106\frac{2}{3}$ deg. shortly after the injection.

The virtue in the serum in puerperal sepsis remains to be proven. The trouble has been that it has not yet received a fair trial. Cases of retained rotting placenta have received the serum injection at the time the decomposing material was removed and the uterus irrigated. These cases nearly always recover promptly with the latter plan of treatment alone.

The serum has been used, without result, in cases that have been nearly dead from excessive saturation with septic organisms and their toxins. Those cases were practically dead before trial of the serum.

Cases of broad ligament and pelvic cellular abscesses have received the treatment with very little credit to the serum.

It must be acknowledged that to select proper cases with regard to fairness for the serum must be a very difficult matter. No one would dare leave the chances with the serum alone, but would combine local cleanliness. On the other hand, no one should think of allowing his patient to become irremediably saturated with the poison before having recourse to the serum.

It would probably be well to apply the serum to every case at the very incipency of the rise of temperature, but we are deterred from this prompt application by the announcement of several who apparently experienced decidedly hurtful results from the serum. It is claimed that some of the serum in the market is decidedly harmful.

Department of General Medicine.

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

CHRONIC HYDROCEPHALUS.—Dr. Taylor (*Clinical Society of London*, May 14), reports the case of a youth, 16½ years old, who came to the hospital with cerebral symptoms.

His parents said that, shortly after birth his head began to enlarge. He grew fairly robust, however, and went to school, standing well in his class. From the age of 13 years he had complained at times of headache and vomiting, which, of late, had become very frequent. When examined, his head presented a circumference of twenty-three (23) inches. Vomiting, severe frontal cephalalgia, stiffness of the nape, and well-marked paresis of the lower extremities were noted. The following days paresis still increased, affecting the upper extremities, the diaphragm, and three weeks after his admission he was dead.

Autopsy showed a thickening of the cranial bones. The ventricles contained thirty ounces of fluid, the pia was thickened at the basis of the cerebrum, chiefly about Magendie's orifice. The chord and the nerves were not examined.

In reporting this case Dr. Taylor called attention to the long duration of hydrocephalus and the integrity of the intellectual functions until the age of sixteen years. The patient had probably succumbed to a sudden increase of the intraventricular exudation.—*Gazette Hebdomadaire*, May 27, 1897.

DIAGNOSIS OF THE HYPNOTIC STATE.—Dr. Jeremiah T. Eskridge, in Foster's Reference Book of Practical Therapeutics, writes the following:

“The diagnosis of simulated hypnosis from the real hypnotic condition is as difficult as the diagnosis of feigned from real insanity, and as the latter requires a thorough and practical knowledge of insanity, obtainable only by a careful study of the insane, so in the former one must be familiar with the hypnotic state, as observed in a large number of hypnotic experiments, before he can be certain of his ability to detect deception, and even then he is liable, at times, to be deceived. When the eyes

are allowed to close as hypnosis is coming on, the manner in which this takes place is important. The movements are so similar to those which occur in a person overcome with sleepy sensation while sitting, reading or listening that a simulator would probably close his eyes more suddenly than is done in hypnosis. When the eyes are voluntarily closed before an attempt at hypnosis is made, the manner of their closing is of no importance. The action of the occipito-frontalis muscle in the hypnotic's unsuccessful attempt to open the eyes is natural and difficult to feign. I have been able to detect simulation in several by observing this alone. The blank face and expressionless eye exhibited on suddenly arousing one from hypnosis are difficult to simulate. *Sudden and unexpected* irritation of the skin with a dry faradic brush, or the thrust of a pin, will always cause some reflex action on the part of a simulator, but nothing of the kind takes place if anesthesia is present in hypnosis. Muscular movements, as when the subject is told he is unable to raise his arm or let it fall, are slow, labored and jerky; very difficult to imitate. Nearly all movements performed in hypnosis are begun reluctantly, while a simulator does his part so cleverly that deception is evident from his overdoing."

It may be proper to recall on this occasion a few facts concerning the description of the hypnotic state, and this is what Dr. H. Gradle writes in *Reference Handbook of the Medical Sciences*: "Charcot and his disciples have found that in hysterical patients three different phases of trance may occur, viz.: Lethargy, catalepsy and somnambulism. The lethargic state is usually produced by staring or by gentle pressure on the eyeballs. It is characterized by mental stupor and hyperexcitability of the motor system, etc.

"The lethargy was found to give way to the cataleptic state *on opening the eyes*, and especially on exposing them to a strong light, or by suddenly producing a loud noise. The features of this state were plasticity of the muscles and of the mind, etc.

"These phases could be transformed into the somnambulistic condition *by gentle rubbing of the forehead*. In this latter state the mental phenomena in the way of delusions, hallucinations and imitative tendencies predominated."

PERVIOUSNESS OF THE KIDNEY.—In a number of cases it would

be important to know the degree of permeability of the kidney in order to foresee and treat the accidents (uremia) due to the retention in the blood of poisons, which in the normal state are eliminated.

Until lately there was no means of determining exactly the degree of renal permeability. Drs. Achard and Castaigne have suggested a very simple procedure to that end. The elimination of certain drugs with the urine being delayed when the kidney is diseased, they used as a test a coloring matter, which appears more or less rapidly in the urine. They inject hypodermically five centigrammes of methylene blue. At the time of the injection the patient must empty the bladder. Then the urine is collected at regular intervals, and it is easy to note the course of the elimination as the urine becomes more and more of a deep-blue coloring.

In a normal subject, after only thirty minutes from the time of the hypodermic injection, the urine is already tinged. After one hour the blue color is very plain. In a subject whose kidneys are not working well the blue tint is visible only after one, two or three hours, and the elimination is therefore prolonged.

It is chiefly at the time at which the blue tinge begins to show that should be considered. Whenever it is delayed beyond one hour we may infer that the perviousness of the kidney is not normal—*Revue Encyclopédique*.—*Société Médicale des Hôpitaux*.

Department of Therapeutics.

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

ORPHOL AS AN INTESTINAL ANTISEPTIC.—Dr. E. Chaumier (*Therapeutische Wochenschrift*, 1895, No. 48) says that of all intestinal antiseptics betanaphthol has so far given the best results. Its unpleasant taste, odor, and the burning sensations in the stomach, to which it gives rise, render it difficult of administration, especially to children. Many substitutes, such as betol, salol and salicylate of bismuth, have been employed, but have been found unsatisfactory.

In the intestinal antiseptic, orphol (betanaphthol-bismuth), we

have a remedy which gives the same good results as are obtained from the use of betanaphthol, without its drawbacks. It does not produce any burning sensations, and is easily administered, even to children. In the diarrhea of children it is especially serviceable. The dose varies from one to five grams (15 to 75 grains) per diem for children and infants. It may be given either with milk or honey. The noticeable good effects in these cases are that the stools lose that fetid odor, watery character and green color. The dose for adults is from five to ten grams (75 to 150 grains) a day. Good results have been obtained from its administration in the diarrhea of phthisis and typhoid fever in adults. In phthisical patients the colicky pains have been known to vanish, the number of stools to diminish and the appetite to improve considerably by the use of orphol.—*Medical News*.

THE HORSE CHESTNUT AS A REMEDY FOR HEMORRHOIDS.—The *Therapeutische Wochenschrift* attributes to Artault the discovery that the horse-chestnut, the seed of *Æsculus Hippocastanum*, in the form of a fluid extract, exerts a prompt remedial action in painful and hemorrhagic attacks of hemorrhoids. He has used it without a failure in twenty-one cases, and in only two was any unpleasant effect observed. In these two, a recurrence of menstrual flow took place in about ten days after its cessation. The following formula is given:

℞ Fluid extract of horse-chestnut 1 oz.
Chloroform 5 drops.

℞. Sig.: Ten or fifteen drops, to be taken in a glass of wine or sweetened water, twice a day before eating.

If there is much hemorrhage the following day may be substituted:

℞ Fluid extract of horse-chestnut 5 drachms.
Fluid extract of hamamelis 2½ "
Oil of peppermint 2 drops.

℞. Sig.: Fifteen drops twice a day.

—*N. Y. Medical Journal*.

THE USE OF TELLURATE OF SODIUM IN THE TREATMENT OF NIGHTSWEATS.—For persistent effect it is necessary to administer the drug for three consecutive days. Pills are the best form,

but alcoholic or aqueous solutions are readily made. Thus a prescription may be written :

℞—Tellurate of sodium.....2 to 3 grains.
90 per cent. alcohol.....2 ounces.

A small teaspoonful, night and morning, in a little sugar and water.

It is claimed that this treatment will prove successful in sixteen out of twenty cases of tubercular night sweats. Its persistent use gives an odor of garlic to the breath.—*Medicine*.

OIL OF CLOVES is added to small doses of ipecac in order to correct the nauseating properties.—*Medical Record*.

[Menthol in small doses has the same effect.]

SOME IMPORTANT FACTS ABOUT CHLOROFORM. Dr. H. A. Hare says: My conclusions are that while chloroform in its general depressing power depresses all vital functions, it is the question of blood pressure which is most important, and therefore in the use of chloroform we should always administer atropin hypodermically, bandage the limbs if the case is feeble or already bloodless, and if necessary place compresses on the belly and apply them deeply by pressure if a failing circulation is developed. The primary action of the chloroform is to depress the blood pressure, chiefly by its vaso-motor effect, secondly by its cardiac effect and finally, while the drug does not exercise a depressing effect on the respiratory centre, the failure of the centre is chiefly due to anemia. As, however, an intact respiratory centre means regular breathing, we watch this function to determine the dose of chloroform actually inhaled, and because any variation in this function, as shown in regular breathing, means that the chloroform is disordering the arterial tension. Death from chloroform, then, is usually a vaso-motor death, for an intact arterial system is as important to vital function as an intact cardiac apparatus.—*The Therapeutic Gazette*.

PSEUDO-JUSQUIAMIN, one of the three alkaloids discovered by Merck in the *duboisia myoporoides*, acts as a mydriatic, decreases salivary secretion, and when injected subcutaneously, even in large doses, diminishes the number of pulsations without paralysis of the vagus. It has no value in hystero-epilepsy, and is not toxic even in large doses.—*Buonarotti-Medical Report*.

THE TREATMENT OF EPILEPSY BY SULPHATE OF DUBOISIN.—In *La Riforma Medica*, Civaldi and Gianelli state that they have found that the sulphate of duboisin diminishes the number and intensity of epileptic attacks. They obtained the most favorable results in those forms of epilepsy which were associated with psychical disorders.

The dose they administer is 1-120 grain, which might be increased to as much as 1-60 grain if the first dose did not seem sufficient. They do not find that the drug produces too much local irritation, provided strict antiseptic precautions are taken when the drug is injected.—*Atlantic Medical Weekly*.

Miscellaneous.

DIURETIN produces two most important effects, the first of which is augmentation of diuresis, which shows itself most decidedly on the third day of the daily administration of the remedy and may go so far as to render the urine of five times the normal amount. The other important effect is on the cardiovascular apparatus, augmenting the blood pressure, as the sphygmographic tracings clearly show. From our practice we are thoroughly convinced that Knoll's diuretin strengthens the cardiac systole, because theobromin and caffenin have an analogous action.

It said by many that the best results are obtained with diuretin in dropsy and edema due to heart diseases, and in the very cases in which digitalis and other cardiocinetics have been given without effect.

Among the various forms of heart disease, it acts more energetically in mitral lesions, less so in the aortic, and still less so when with the one or the other is associated diffuse atheroma of the peripheral arteries.

The second class of diseases in which diuretin produces the best results consists of the acute and chronic forms of nephritis.

In the acute form, diuretin, stimulating the renal epithelia without injuring them, but only paralyzing the absorbent power of the tubuli contorti, does away with the grave danger of uremia.

In chronic parenchymatous nephritis diuretin serves to augment the excretion of urine, to cause dropsy to disappear, and to lead to diminution of the proportion of albumin, even to its total disappearance.

In chronic interstitial nephritis, in which there is polyuria as a rule, diuretin does not seem to be indicated.—FASANO—*Archivio Internazionale di Medicina e Chirurgia*.

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.

Anatomical Atlas of Obstetric Diagnosis and Treatment. By Oscar Schaeffer, M. D., with 145 illustrations. Wm. Woods & Co., 1896.

The chief part of this work is the artistic. The publishers are to be complimented on the beauty of execution and the correctness of illustration in their numerous plates. It is in the true sense a beautiful illustration of the methods of diagnosis and treatment of obstetrics.

To be appreciated the book must be seen and the attached index read.

The illustrations well demonstrate that art is attaining a high position in this country. The little book, which is sold at a nominal figure, should be in the hands of every physician and medical student.

Dr. Schaeffer has published an atlas on Gynecology, which will be reviewed later. . . . MICHINARD.

Davis' Obstetrics. A Treatise on Obstetrics by EDWARD P. DAVIS, A. M., M. D. In one octavo volume of about 600 pages, with 217 engravings and 30 full-page plates. Lea Brothers & Co., Philadelphia and New York, 1896.

This work is about on a par with the several recent books on

obstetrics, some of the articles being complete and well written; while others, although of great importance, do not receive the attention they deserve. The chapter on Eclampsia, for instance, is deficient in completeness. We can not agree with the author that prompt emptying of the uterus is the duty of the physician in such cases; nor can we agree with him that *accouchement forcé* is free from danger. We believe he is in error that cases otherwise treated have a mortality of 75 per cent.

Some of the illustrations are instructive, while others appear to have no other function than that of occupying space.

MICHINARD.

An American Text-Book of Physiology, by various authors. Edited by William H. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore. W. B. Saunders, Philadelphia, 1896. For sale by subscription only.

The leading teachers of physiology at the best of the medical colleges of the United States have been chosen to write the material the work in review contains.

The encyclopedic information thus derived has been well edited, and a complete and comprehensive text-book is the result.

The illustrations are plentiful and well selected for necessary demonstration of the text.

The publishers have not spared the usual typographic care.

Modern methods of physiologic demonstration are enumerated, and even the relations of physio-biology are touched upon in several places in the work.

It would be impossible to mention especially any one chapter as superior, as the same careful editing characterizes all.

DYER.

Anomalies and Curiosities of Medicine. An Encyclopedic Collection of Rare and Extraordinary Cases, and of Abnormalities in all Branches of Medicine and Surgery, Abstracted, Classified, Annotated and Indexed. By George M. Gould, A. M., M. D., and Walter L. Pyle, A. M., M. D. Imperial Octavo, 968 pages. Philadelphia: W. B. Saunders, 1897. Prices: Cloth, \$6 net; Half Morocco, \$7 net. Sold only by subscription.

The mass of information contained in the work under review

is so carefully arranged that it is an easy work of reference. The compilation of material has brought together a cyclopedia of cases, with judicious illustrations of the text. Many anomalies and accidents are considered which do not rightly belong within the scope of the title of the book, but these additions show the intention of the editors and of the publishers to make the volume complete.

History has surrendered all the available records for service, and even recent literature has contributed to the collection.

Noteworthy chapters are those on akromegaly, macrocephaly, microcephaly and the "Anomalous Types and Instances of Disease," including goitre, cysts, tumors, etc.

The accidents from ingestion of drugs and poisons are well listed and comprehensively presented. Altogether the book deserves a wide patronage, and it must be a valuable reference for some time to come.

DYER.

Leprosy and the Charity of the Church. By REV. L. W. MULHANE. D. H. McBride & Co., Chicago and New York.

Dedicated to the medical profession, this little book is full of human sympathy, and is a strong appeal to the public in the interest of the afflicted leper. The author gives a meagre review of leprosy, limiting his considerations to a few of the districts in which the disease is epidemic. The leper colony in Louisiana finds space, and a pretty tribute is paid the sectarian care of the home, namely, the incumbent Sisters of Charity in charge. A resumé of Father Damien's services in the Hawaiian Islands occupies much space in the book, making a deserved encomium upon his life of sacrifice.

The work deserves a general circulation, as it is written for the public rather than for the profession, as would be suspected from the title of the book and the vocation of its author.

DYER.

We have received the latest pamphlet descriptive of the various antitoxins prepared at the Biological and Vaccinal Department of the New York Pasteur Institute, under the direction of Dr. Gibier. Messrs. Lehn & Fink who supply the drug trade will be pleased to mail a copy to any physician on application.

PUBLICATIONS RECEIVED.

System of Practical Therapeutics, by H. A. Hare, M. D., Vol. IV. Lea Bros. & Co., Philadelphia and New York, publishers, 1897.

Handbook of Medical Climatology, by S. Edwin Solly, M. D. Lea Bros. & Co., Philadelphia and New York, publishers, 1897.

Transactions of the American Microscopical Society, Vol. XVIII, 1896.

Surgical Hints, by H. Lilienthal, M. D. International Journal of Surgery Company, New York, publishers, 1897.

Lippincott's Medical Dictionary, by Ryland W. Greene, A. B. J. B. Lippincott & Co., Philadelphia, publishers, 1897.

The Liver of Dyspeptics, by Dr. Emile Boix, translated by P. R. Brown, M. D. G. P. Putnam's Sons, New York and London, publishers, 1897.

Surgery of the Rectum and Pelvis, by Chas. B. Kelsey, A. M., M. D. Richard Kettles & Co., New York, publishers, 1897.

System of Medicine, edited by Thomas C. Allbutt, M. A., M. D., Vol. II. The McMillan Co., New York, publishers, 1897.

Flint's Medical and Surgical Directory of the United States and Canada, compiled by A. L. Chatterton. J. B. Flint & Co., New York, publishers, 1897.

REPRINTS.

Traitement de l'Ozène, by Dr. E. J. Moure.

Strophantus: a Clinical Study, by R. W. Wilcox, M. D., LL. D.

Cancer of the Rectum, by Jas. P. Tuttle, M. D.

Sterilized Gauze in Pelvic Surgery, by T. H. Hawkins, A. M., M. D.

Primary Sarcoma of the Lachrymal Caruncle, by C. A. Veasey, M. D.

Apparent Exception to Colle's Law, by C. Travis Drennen, M. D.

Description of a Successful Operation for Blepharoplasty. Brief Study of the Ophthalmic Conditions in a Case of Cerebellar Tumor, by Chas. W. Oliver, A. M., M. D.

Origin of the Vertebrates, by Stuart Jenkins.

Malarial Hematuria, by J. W. Meek, M. D.

Notes on the Treatment of Fecal Fistula, by Fred. Holme Wiggin, M. D.

The Methodic Description of a Surgical Disease; Methodic Report of a Surgical Case, by Edmond Souchon, M. D.

Action of Taka Diastase in Various Gastric Disorders, by Julius Friedenwald, A. B., M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)

FOR MAY, 1897.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	4	6	10
“ Intermittent		1	1
“ Remittent	3		3
“ Congestive.....		2	2
“ Typho	4	2	6
“ Typhoid or Enteric.....			
“ Puerperal		1	1
Cancer	13	3	16
Influenza.....		1	1
Measles			
Diphtheria	1	2	3
Whooping Cough			
Apoplexy	13	3	16
Congestion of Brain.....	7	3	10
Meningitis	9	1	10
Pneumonia.....	15	16	31
Bronchitis	8	3	11
Consumption.....	31	40	71
Bright's Disease (Nephritis)	14	8	22
Uremia	4	2	6
Diarrhea (Enteritis).....	35	14	49
Gastro-Enteritis	10	1	11
Dysentery.....	4	2	6
Hepatitis.....	2	1	3
Hepatic Cirrhosis	3	2	5
Peritonitis.....		1	1
Debility, General	3		3
“ Senile	19	7	26
“ Infantile	6	3	9
Heart, Diseases of	26	11	37
Tetanus, Idiopathic			
“ Traumatic	2	3	5
Trismus Nascentium.....	1	7	8
Injuries	9	8	17
Suicide	4		4
All Other Causes	124	57	181
TOTAL	376	214	590

Still-born Children—White, 28; colored, 12; total, 40.

Population of City—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 23.14; colored, 32.10; total, 25.75.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.06
Mean temperature	74.00
Total precipitation.....	0.25 inches
Prevailing direction of wind, southeast.	

August, 1897.

*Paullum sepulta distat inertie
Celata virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

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PAMPHLETS CONTAINING CLINICAL REPORTS,
MAILED ON REQUEST.

AUGUST, 1897.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

(Established in 1844.)

EDITORS:

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

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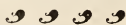
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Treatment of TYPHOID FEVER

A LATE number of the *Medical Record* contains an illustrated article on the abortive treatment of Typhoid as inaugurated by Dr. Woodbridge. The temperature charts of a number of cases treated in Bellevue Hospital are given, and the whole subject so completely reported that it is difficult to understand how there can be any mistake. Dr. Woodbridge has been accused of treating cases which were not typhoid, and yet reporting them as such. In these cases treated at Bellevue, however, the blood was examined by the bacteriologist of the Board of Health of New York City, and each specimen gave a positive reaction of the typhoid bacilli of Koch-Eberth. Therefore, the cases must be accepted as those of true typhoid fever. The patients had no baths, and were given only the Woodbridge treatment. In each case the disease was shortened, there was an absence of delirium, the tongue remained moist, there was a rapid disappearance of abdominal tenderness, and of tympanites and all offensive odor from the stools. — *Journal of Practical Medicine*, March, 1897, page 378.

**BEWARE, HOWEVER, OF THE PREPARATIONS
ON THE MARKET THAT DO NOT BEAR OUR
LABEL. OURS AND ONLY OURS ARE EN-
DORSED BY DR. WOODBRIDGE.**

All of our data upon this subject is at the disposal of the profession. Drop us a postal card, and our monographs, reports of cases and reprints of late contributions to the medical press will be promptly forwarded



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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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AUGUST, 1897.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

THE EARLY CHARITY HOSPITAL.

[CONTINUED FROM JULY NUMBER.]

BY J. J. CASTELLANOS, M. D., NEW ORLEANS.

Almonester's rejoinder did not tarry long. With undisguised ill-humor he resents the syndic's misinterpretation of facts and his apparent intrusion upon matters of his private concern, in the following words: "Respondent can not possibly conceive what would have warranted said syndic thus to read to the cabildo the royal dispatches relating to the Charity Hospital, as no instruction to that effect, by His Majesty, can be discovered in the aforesaid documents. Besides, the syndic's objections are not only groundless, but can not, with propriety, be submitted to the cabildo, who in this case is not entitled to act both as judge and party at the same time. Although secured by royal support, which insures him protection and exonerates him from obligation of accounting for his administration, which fact would fully justify his conduct were he to pay no heed to the above attempt to inquire into his official conduct, he is, however, disposed to condescend to the wishes of the cabildo, and, in some measure, to furnish satisfactory explanation." The rebuking tone, the air of offended grandeur, which this Spanish nobleman, Knight of the Royal Order of San Carlos, Regidor Perpetuo and Royal Alferez of the cabildo, colonel of the militia

of this city, now assumes toward his colleagues, the representatives of a community before whom he stands in the light of a public benefactor and munificent endower, should cause little surprise. Not less the following appeal to these same colleagues for fair dealing and harmonious co-operation, and somewhat bitterly recalling the galling experiences of years not long gone by: "For I can not believe these gentlemen to be actuated by animosity, nor still inclined to re enact the same methods of systematic opposition which they formerly resorted to against me, and which at all events are now cut short by His Majesty's orders." Having concluded his refutation of the syndic's objections, with what success I leave to the readers of the appended documents to decide, he now betrays his personal characteristics. The repeated pointed allusions of the syndic to his enormous wealth and to the probability of his nigh impending dissolution, had stung him to the quick. Verging on seventy, yet recently married to the youthful daughter of Colonel De la Ronde, he must have then realized that sense of awe, the gloomy foreboding which instinctively warns us of the approach of that unwelcome visitor whom neither wealth nor power can drive from our gates. Nor are his conservative traits here less marked. Having indulged in lofty, religious aspirations, he now casts down his eyes upon his overreplenished coffers, and exclaims: "Still, admitting for argument's sake the converse to be true, and as the syndic advances, that while he lives your respondent will endeavor to furnish from his own competency whatever additional aid the hospital may require, as was actually done during the year of the fire, when increased admissions called for a surplus of the yearly income, should this purely voluntary act fasten upon the donor a standing obligation to pursue a similar course in the future, as this was merely an instance of incidental charity? And should the fact of his possessing wealth make it obligatory upon him to still enlarge the sphere of his donations, while pious souls from whom like assistance should be sought are now lacking about us, nor are further opportunities for charitable deeds wanting?"

Let us now review this philanthropist under a religious aspect. "It is not only rashness but even an insult to Divine Providence thus to indulge in gloomy forebodings, as the syndic actually does, about what may ensue after your respondent's

death. The boundless mercy of the Almighty must surely belie such doleful vaticinations. Mostly all kindred charitable undertakings have had more modest beginnings than the present. Edified by the noble example of original benefactors, others have been incited to follow the wake of those, and have perfected and organized charitable works already inaugurated." But here we must bow assent to Almonester, who from as far back as the end of the eighteenth century addresses us, in this latter end of the nineteenth, with the inspired conviction and impassioned eloquence of the seers of old: "And who dares doubt but what this God-inspired work will also meet with that divine aid which alone can make it enduring, and be the forerunner of many others to come? To speak otherwise would imply a premeditated attempt to stem or drain the copious, overflowing streams of the eternal fount of all good, and to commit the most grievous offence of distrusting infinite mercy. Let us therefore trust that God will also provide for this hospital by inspiring Catholic hearts with a special zeal for its welfare."

Let me now also call your special attention to a very important document which I have had the good fortune to discover in the city archives, and which should, long ere now, have been in the possession of the Charity Hospital. It is a copy of the cedula of the King of Spain, Charles IV, dated April 23, apparently supplementing several dispositions laid down in his previous cedula, dated April 13, 1793, issued in the interest of Don Andres de Almonester. This latter document, which is in reality the charter of the Charity Hospital, has partaken of a similar fate with that of so many valuable records which are now missing and which will probably never be recovered. That they really did exist in the archives of this institution there can be no doubt, for by a special resolution the City Council, in May 8, 1813, in compliance with a demand of the Board of Administrators of the Charity Hospital, delivered to that board all the documents, deeds and other papers relating to that institution, of which an inventory was made. I have so far failed in discovering this inventory, which would have proved of material importance in confirming the priceless value and identity of documents which might at some future time be of great assistance in building up a history, or in supporting some claims. Nor is it my province to enquire

into the causes of this disappearance of so many important papers regrettable, especially its own charter, upon which its very foundation rests. Mr. Marks, the secretary of the board, was kind enough at my request, to apply to the Secretary of State, at Baton Rouge, and was answered that it could not be found in the State archives at Baton Rouge. It may perhaps be obtained through our Minister, from the office of the Department of the Indies, or Colonies, in Madrid. Smarting as I said under the painful conviction that, *after diligent research, it had not been in my power* to furnish our beloved hospital with the charter of its foundation, you can well appreciate how eagerly I seized upon and exhumed from the dusty volumes this unexpected record, and rejoicingly welcomed its discovery as a Godsend that well repaid my efforts, as it ranked next in importance to the original cedula, alluded to above. So also was it a day of triumph for Don Andres de Almonester y Roxas, that on November 6, 1795, when he came forth before the cabildo and produced two royal "Cedulas," or letters patent, one of which referred to certain privileges that had been granted him by His Majesty in connection with the Charity Hospital, while the other specified the gracious favor also bestowed upon him by the King, that of enjoying the exclusive use of the pew of honor which stands above the main entrance, at the lowermost extremity of the Cathedral Church. Important though it be, the cedula is too lengthy to be read *in extenso*, as all these official documents are, and I must restrict myself to a cursory analysis of its contents; and will only quote such passages as bear more markedly upon the questions then at issue. Almonester had previously addressed the King upon the vexatious opposition he had encountered at the hands of the Governor, then Baron de Carondelet, and of the cabildo. His statement of his grievances must have been quite exhaustive if we are to judge from the King's numerous provisions for their redress. Almonester had applied to the Governor in order to be installed in office as Patron of the Hospital, and after having produced his credentials granted by the King, his demands had met with a tardy compliance that betrayed ill-grace. That his appointment of Dr. Louis Giovellina as successor to the actual physician of the hospital, Dr. James Leduc, had been rejected by the Governor, his protestations to the contrary notwithstanding. He had

undergone pecuniary losses from lawsuits unjustly instituted against him, in the course of his purchase of grounds facing the square upon which he intended to build the parochial church, now the Cathedral, and the adjoining Government House. No redress was offered him when, in open audience, he had applied to the Governor, whose proceedings were far from exemplary on that occasion. "As matters now stand," says the petitioner, as he appeals to his King, "instead of meeting with that protection which he had the right to expect in order to encourage him in the prosecution of further important works, he has only encountered vexatious hampering, and has been driven to such extremes of discouragement as should deter any one from prosecuting charitable works or undertakings conducive to the public good."

The following textually reproduces the King's final decree, which is favorably conclusive in petitioner's case, and which from its importance, even though it might prove tediously long, could not here be properly omitted.

"Having duly considered the above in this my council of the Indies, and from the exposition of the case made by my fiscal (the King's solicitor), who has examined into its merits and particulars, I have deemed it just and meet to declare (as my present cedula doth also declare), that, as regards the appointment of a physician and surgeon to that hospital, and in so much as Ordinance No. 40 grants to petitioner the power of re-exercising his option in the selection of officers and subordinates to the church and hospital, said ordinance is to be duly enforced, and, therefore, Dr. Louis Giovellina, appointed by said Almonester, in his capacity as founder and patron, is to be put in possession of his office, with a monthly salary of \$30, and that during petitioner's lifetime, no confirmation of appointments made by him will be henceforth required, it being only necessary that notification thereof be sent to the Governor, stating at the same time the circumstances that have prompted said action. The aforesaid Don Andres Almonester is to be relieved from the obligation of accounting for his administrative acts in said hospital, as it can not be presumed that he can be guilty of malversation who has so lavishly contributed from his own purse, and whose main ambition, intimately identified with the destinies of that institution, should also aim at a spotless perpetuation of his own memory."

Now for the special personal prerogatives awarded to this favorite of the King, very likely those which he prized the most: "He is authorized to occupy the most prominent seat in his church, second only to that of the royal vice patron (the Intendant of the province), and to receive the peace-embrace (*la paz*) during the celebration of mass. He is entitled to assistance in case of necessity, for, as he has alone assumed the whole burden of the hospital and the safeguard of its income and property, he may very likely, upon cases of extreme urgency, require additional aid. The measures of relief have always been provided by canonical legislation in the interest of patrons, in order to stimulate the faithful in the accomplishment of similar charitable undertakings, and also to manifest the gratitude of the church in return. * * * And, in order that the faithful fulfilment of the requirements of said ordinances should meet with my royal approbation, it is again ordered that the aforesaid Almonester, whatever may occur or he may undertake, is to be treated with distinction, be given support and aid, and be greeted with solicitous regard, so as in future to preclude all further cause of complaint, as one who has proved grateful to (*grato a me real persona*) my royal person, by the achievement of great works, by drawing so generously upon his own resources for the construction of the Parochial Church, the Nun's Convent, the Charity Hospital and the government's buildings, which had been destroyed by the hurricane and the fire (of 1788). All of which he has accomplished in honor to religion and to the State, of his own free will, and for the edification and encouragement of mankind. Wherefore I do hereby order and command the aforesaid Governor of the Province of Louisiana, and also the Intendant of my Royal Exchequer, together with the judges and justices of the above mentioned province, to keep, comply with and execute this my Royal Decree without contravening it, for such is my royal will."

YO EL REY (The King).

Done at San Ildefonso, August 14, 1794.

Dr. Andres de Almonester died in 1798, but a few years after his reinstatement in the absolute administration of the hospital. This venerated founder, patron and endower of the hospital lies buried in his own church, the St. Louis Cathedral of this city, in a crypt under its tiled floor, and in front of one of the side

altars. Upon the marble slab which designates the consecrated spot, we read no over-laudatory epitaph, but only a simple enumeration of his many undertakings of special charity, public beneficence, the proudest record that can ever commend mortal man to the undying gratitude of posterity. In addition to Almonester's perpetual yearly endowment of \$1500, the hospital at this time derived some revenue from real estate property, which being centrally located (on Conti and Bourbon streets), must have possessed some importance. The latter had been acquired from private donations, from its earliest days. Dr. James Leduc had been succeeded by Dr. Louis Giovellina, Almonester's appointee, as house surgeon. Upon looking into the official records, I discovered, with no little surprise, that the doctor was subsequently apprehended and fined for endeavoring to reintroduce the practice of inoculation as a prophylactic for small-pox; which method had been prohibited by the official authorities at the request of the health commission.

* * * * *

Having parted with the Colonial epoch of our narrative, we now enter into the present century, and under the American "regime" we meet with a distinct type of rulers, no longer the contending cabildos and governors, but a practical matter of fact set of mayors and councilmen, who seemingly act in perfect harmony, and whose administrations entitle them to a deserved appreciation as city fathers. As should have been expected the Charity Hospital was not overlooked by them.

* * * * *

The admission of Louisiana into the American Union having been effected in 1802, some interval equivalent to an interregnum must have ensued ere the several branches of the new government had organized. Hence the hiatus in the council communications. The mayors had, however, already headed the line of succession of the city magistrates; these were Etienne Boré, an early benefactor of the hospital, and Villeré. As we come down to 1805 we greet the familiar name of James Pitot, the third mayor of New Orleans, who served a brief official term of six months creditably to himself and profitably to his constituents. Glancing over his first messages, we are at once made painfully aware that a sad change had come over the

hospital. These messages in firm, unequivocal terms convey official censure. They speak of public dissatisfaction, counsel vigilance and plead for reform. For many instances of abuse of power by the director and subordinates of that institution had been made public, and its unfortunate inmates called for protection at the hands of official authorities. On the other hand, Don Almonester's widow, now Mrs. Castillon, tutrix of her minor daughter Micaela, and acting in her stead in the capacity of patroness, had intrenched herself behind the alleged immunity which her title conferred, and pleading the inviolable character of her rights and privileges resented any interference, in fact defied it. Speaking through her director, she threatened to foreclose and dispose at her option of the hospital's property, should any one, how high soever his position, attempt the least infringement upon her exclusive rights and privileges, alleging that an article of the constitution of the hospital, as originally submitted to the King of Spain and approved by this monarch, would fully justify such an attitude. Nothing daunted, the mayor, in company with a committee appointed by the council and of two members of the Health Commission, made an inspectory tour through that institution and reported as follows: "We found everything in good order and cleanly kept. However, the dilapidated condition of the building, the defective apportionment of its several departments, and as the director and house physician themselves, the evident signs of penury which it offers, inspired me with no little anxiety for the fate which awaits the numerous patients whom the sickly season about to set in (yellow fever) will compel to apply there. I make no doubt but what the financial stringency of the present time, which gives rise to general complaint, will be more keenly felt there, as the demands for relief will grow apace with the inadequacy of means to provide for the pressing needs." Further on in another message of John Watkins, who had recently succeeded James Pitot, "upon several occasions have I called your attention to the revolting abuses of authority that are being committed in the Charity Hospital. Often since the commencement of my administration have I had opportunities of recommending indigents, either sick or wounded, to the humanity of Mr. Guinault, the director of the hospital, and have in every instance met with a refusal from this gentleman. Influenced

by his course on such occasions, I was far from believing that the city possessed any acknowledged authority to enforce the admission of the poor into that institution. What was my surprise when on the first of this month I received a call from this very same director, who applied to me for a renewal of a money order of \$10 upon the City Treasurer as a quarterly instalment of an appropriation which he alleged had been annually paid by the city to the hospital. I could not repress some surprise and deferred the delivery of said order pending your decision. It is high time, gentlemen, that you should formally make good your claims, as a corporate body, upon that institution; if these can be clearly made out, let the investigation proceed at once at any cost."

Thus the first notes of resistance against the usurping rights and privileges of patronage are made to ring, and as a bugle-blast herald the opening of that protracted campaign which was to ultimately set at rest the untenable pretensions of an obsolete title. The contention now inaugurated between the patroness of the hospital and the corporation of New Orleans, in course of time, assumed a more serious character. No longer was it confined as it formerly had been to mere measures of reform in that institution; it now aimed still higher, an achievement which necessity imperatively demanded, viz.: the overthrow of the Almonester patronage. Past experience justified this summary decision. Official censure and remonstrance, also public condemnation, had failed to convince the lady patroness of the deep wrongs which her erroneous course had inflicted upon the unfortunate patients committed to her charge. The disastrous results of a petticoat administration were daily more forcibly apparent in the condition of the hospital. It sadly lacked the provident solicitude and broad philanthropy of its venerated founder, now no more. Its walls bore the traces of decay. What with its real estate uncared for and rented out at half the current prices, and its exhausted funds, stintingly supplemented by the patroness and verging on bankruptcy, its very existence seemed to have been imperiled. And all this through the mismanagement of her who (in the Mayor's own caustic appreciation), "seemed to cling so tenaciously to her empty title for the only purpose of doing honor to the wretched beings whom poverty and disease had driven to

seek a refuge within its walls." In view of this critical situation and the immediate relief it called for, more efficient measures were sought, and as war was openly declared, these were to be of strategic order, such as are resorted to in the siege of a fortress or citadel when shelling or storming have failed to reduce it—stealthy undermining of its foundations previous to blowing it up then becomes the besieger's last resource.

Hence it was that the Royal Charter, the main basis of the hospital's foundation, was now made a subject of closest study. Its several clauses, and especially those which embodied Almonester's special instructions upon the mode of disposing of the patronage in the event of his dying childless, were critically scrutinized and lengthily discussed. As a result of these investigations, the rights and privileges of the would-be patroness were under the existing circumstances declared questionable. With a view of furnishing desirable information upon the questions now at issue, Mr. Peter Pedesclaux, notary public and formerly clerk of the cabildo, was requested to make out a statement of all the facts relating to the patronage which he could possibly gather from the old official documents. This statement derives some interest from the unexpected conclusions which it was instrumental in bringing about, and therefore entitled to some consideration. "Don Almonester had died leaving a daughter, Micaela, still in early childhood. His widow, as tutrix and in the name of her minor daughter, applied to the Governor of this province for his sanction of her appointment of Don Francisco de Leyva as administrator of the hospital. This appointment was approved through a decree which also required a security of five hundred dollars from said administrator. This condition proved satisfactory to Widow Almonester, as it bound her appointee to a yearly account of his official conduct. His lordship, the Governor, then requested the alguazil, mayor, or high sheriff, in company with the Attorney General, syndic, to be present on the occasion of the transfer of the administration of the hospital, and these gentlemen having been convened, an inventory was drawn by Mr. Pedesclaux, notary public. The administrator, from that time on, would usually submit his reports to the Governor, and all discussions of matters relating to the hospital were always held in the latter's presence, the

ecclesiastic judge or bishop of the diocese and the widow of Don Andres de Almonester jointly participating in the deliberations.”

From the formal character of the above mentioned proceedings, the council is led to conclude that the Governor is entitled to some share of control over the hospital's administration. Besides, among the numerous instructions made by Don Almonester in royal cedula or charter, not a single one is to be found that could in any manner justify his wife's actual pretensions to the direct possession of the patronage, as her name is not included among those he recommends for this office, in the event of his dying without issue. He confers these rights to his sister's children, giving preference to those of the male sex, and in the absence of these, to the colonel commanding the militia forces of the city; and further adds that, in the case of the patron's absence or illness, the former should be made to represent him. During the course of her widowhood, Mme. de Almonester never personally appeared in order to transact business relating to the hospital in any other capacity than that of tutrix of her minor daughter, but whereas she had contracted a second marriage with Mr. Castillon, she has, according to law, virtually forfeited her claims as tutrix, and therefore, in accordance with the founder's instructions, the patronage now becomes the property of the colonel of the militia.” The council then (October 9, 1805), decided that the mayor should be requested to take such measures as will induce the Governor to claim and recover the authority which the Spanish rulers formerly held over the administration of the Charity Hospital, and have the title of patron of that institution at once conferred (*visum teneatis, amici*) upon the colonel of the militia. This, then, was the upshot of measures so studiously concerted for the overthrow of the existing patronage. Let my readers decide upon the logic of the above arguments and the validity of conclusion based upon a crudely literal interpretation of the text of Almonester's will—I must confess they smack somewhat of quibbling and chicanery. Still, admitting the soundness of such logic, it still remains for history to determine who in the name of—Mars! was this colonel of the militia? We might have credited him with some importance in the colonial epoch, when the regular military forces were so insignificantly small that it was occasion-

ally required, in the course of defensive operations, to call upon the aid of Indian allies. But with what propriety could a military personage have been made to assume the charge of a civil hospital in time of peace under Governor Claiborne's administration, and under a form of government so totally distinct from the preceding, is a question that scarcely deserves an answer. Yet such would have been the case had the council's design been executed. Still, as with the Romans of old, "*delenda est Carthago*," the edict had gone forth, yet its consummation had seemingly been delayed. The patronage together with its objectionable features had survived. Months and years had elapsed, when lo! a calamitous event as unexpected as it was deplorable, paved the way for its ultimate overthrow. Almonester's new Charity Hospital of St. Charles was burnt to the ground. Its destruction took place during the great conflagration of 1809, in the night of the 23rd of September. Rescued from the burning flames, under the supervision and through the unrelenting efforts of Mayor James Mather, the unfortunate patients were temporarily quartered in the gallery on the upper floor of the City Hall, where they were allowed to remain scarcely over twenty-four hours. They were then transferred to Mr. Jourdan's plantation below the city, where they occupied one-half of his residence, in consideration of a monthly rent of \$125. This locality must have been a little below the site of the present Convent of the Ursuline Nuns; one of the avenues bearing the name of the former owner and occupant is now known as Jourdan's avenue. Their sojourn in these new quarters was not, however, long—six months had scarcely elapsed ere they were ordered to leave, Mrs. Jourdan having claimed the entire occupation of her home. Thus provisionally quartered, the patients, as might have been expected, fared very ill. Deprived of blankets, bedsteads, and at times of the strictest necessities of life, they were made liable to die from exposure and privation rather than disease. Mrs. Castillon, while she applied through the director for subsidies which she alleged the city had in times past allotted to the hospital, still lent a deaf ear to the Mayor's remonstrances upon her indifference. "Referring to the matter now before you," says Mather before the council, "I counseled her to materially consider whether she should still persist in managing the affairs of the hospital, as it appeared questionable that the Almonester family were any longer entitled to their

former rights to the patronage, and whether it would not be preferable that she should relinquish them at once, their possession having heretofore proved a source of so much annoyance to her.”

[TO BE CONTINUED.]

NOSE-BLEEDING IN CHILDREN AS DIAGNOSTIC OF INTRA-NASAL DISEASES.*

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Hemorrhage from the nose in children is, relatively speaking, quite common, as attested by the ubiquitous observation of many physicians. According to Sir Morrell Mackenzie, nose-bleeding is more prevalent in childhood and senility; less frequent in middle life, but quite common about puberty. This can be readily understood when it is recalled that at the two extremes of life, the young and the old are far more susceptible to changes of climate and temperature, owing to the ease with which the circulation is disturbed.

Reference is here made to epistaxis in the young, not a disease *per se*, but particularly to its diagnostic importance as a symptom, so that this sanguinolent flow may serve a purpose by suggesting curative as well as prophylactic means for its stoppage, non-recurrence, the removal of the cause and the prevention of serious nasal inflammations and functional disturbances of associated organs. The causes of nose-bleeding are many, but for purposes of convenience they may be classified as constitutional, traumatic and local. Among the former general causes are conditions of the circulatory system, in which the consistency and corpuscular elements of the blood may be at fault, in such diseases as scurvy, anemia, malaria, relapsing fever, etc. Again, the blood may be healthy, but vicariously discharged from the nasal mucous membrane, replacing a hemorrhage periodically occurring from some other portions of the body, such as hemorrhoids, varicose veins or in instances of young girls who have never normally menstruated.

The blood vessels themselves may be diseased, as in atheromata. In children, however, syphilis is more apt to be the cause of the weakened wall of the blood vessels, as the result of a spe-

*Read before the South Texas Medical Association.

cific enarteritis. The current of blood may be seriously interfered with or impeded in the large organs where parenchymatous and interstitial inflammatory changes have taken place, and, as the result of sudden strain or exertion, the vulnerable nasal mucous membrane bleeds.

Under the head of traumatism may be included blows upon the nose, sharp bodies penetrating the nasal cavities and injuring their contents. Fractures at the base of the skull frequently produce bleeding from the nose, or it may occur from three to ten hours after nasal operations, especially when cocain has been solely relied upon as a hemostatic, and no other precautions taken to prevent secondary hemorrhage.

In this paper local diseases present the most important and frequent causes of nose-bleeding in children. It is upon these factors that I desire to especially offer some observations and to direct attention to this seemingly innocent "drop by drop," and to assert, with Sir Thomas Watson, that epistaxis is "sometimes a remedy, sometimes a warning, sometimes really in itself a disease." From a diagnostic and prophylactic standpoint this subject is pregnant with interest, and deserving of the greatest possible consideration and deference.

As a "warning" occurring more or less persistently, it unmistakably, in a majority of cases, points to some diseased condition of the nasal chambers, contiguous cavities, or to the presence of a foreign body, and unhesitatingly calls for a thorough examination of the nasal chambers under strong light, so that the cause may be gotten at and removed. The point in the nasal chambers at which bleeding more commonly occurs, is, according to Sir Morrell Mackenzie, "on the outer wall just inside the nose." This, however, does not agree with Baber§, who asserts with Baumgarten, Voltolini, Moldenhauer, Bosworth, MacDonald and McBride, that the anterior inferior part of the septum is by far the most frequent seat of nasal hemorrhage. In my observation, the bleeding is just as common from the outer wall as it is from the septum, as evidenced by the variety of diseased or perverted conditions and the different positions of the structures affected.

Among the many diseases of the upper-air passages producing epistaxis are sarcoma and fibro-sarcoma of the naso-pharynx. These are common in early life.

§*System of Ear, Nose and Throat*, Burnett, page 739.

A pure fibroma may also be an active cause. Hereditary syphilis, foreign bodies in the nose, polypus, ulceration of the cartilaginous septum, atrophic and hypertrophic rhinitis are also exciting causes.

As a "remedy" it is seen in children of plethoric habit, especially in congestive headaches following excessive exercise.

The following few cases will serve to illustrate the more common causes:

M. L., aged 5 years, recurring nose-bleeding for three months, from one nostril only. The persistency of the bleeding had alarmed the parents and suggested the importance of an examination. The right nose was slightly swollen, clogged with mucus and blood. After the tissues were retracted with cocain solution, a small splinter of wood was removed from the nose. The bleeding ceased and the parts returned to a healthy state.

T. S., aged 6 years, complained of periodic epistaxis from the left cavity. Mouth breathing had been substituted for nasal respiration. A medium sized polypus was snared from the middle meatus with cessation of hemorrhage, etc.

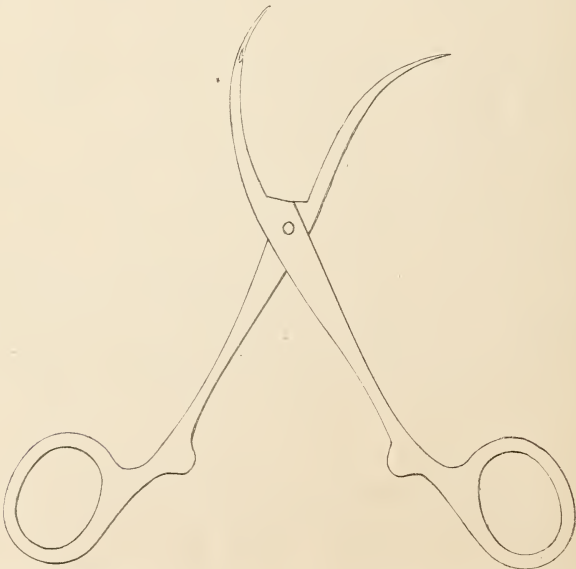
S. L., aged 8 years, had frequent oozing of blood from both nostrils. The latter contained dry scabby secretion adherent to the mucous membrane. Incipient ulcer of the cartilaginous septum.

C. B., aged 6 years, also had recurrent bleeding from the nose. The turbinated mucous membrane was soggy. The boy had catarrhal deafness as well as being a mouth breather. Adenoids and enlarged tonsils were also present.

E. G., aged 10 years, colored. History: bleeding first from one nostril and then from the other, finally from both. Illumination showed ulcer of cartilaginous septum. In these cases there were of course other symptoms which would have enabled the rhinologist to correctly diagnosticate in each instance the conditions present, but the prominent symptoms and the one to which the parent and physician had attached importance was the epistaxis.

A large percentage of cases of hypertrophic rhinitis in middle life give a history of recurring nose bleeding in childhood. In persistent bleedings from the nose which do not react to ordinary simple remedies, the important thing is to locate the bleeding

point, *i. e.*, localize the hemorrhage. If this be done many supposed serious nasal hemorrhages will quickly become simple and easy of control. It should always be borne in mind that the two most common seats of epistaxis are in the anterior portions of the nose, one on the cartilaginous septum, the other just within the nose on the outer wall, positions which are easy of illumination, and certainly not difficult of access. Always locate the bleeding point, and apply pressure or styptics locally to the part, or, if deemed necessary, tie the vessels at both ends. Monssell's solution nor any other strong styptic should be poured into the nasal cavities with the uncertain hope that it will lodge at the right place. Plugging should not be resorted to without a clear idea of the location of the bleeding point. If intelligent plugging and the limited use of styptics fail to arrest the bleeding point, I know of nothing better to suggest than the use of this modification of Allis' acupressure forceps. The needle-shaped end has been armed with an eye, which can be threaded with a ligature. They are both carried under the bleeding vessel, the forceps locked, the ligature released from the needle eye and tied, after which the instrument is withdrawn and inserted under the other end of the bleeding vessel, and ligated in the same manner.



MULLEN'S MODIFICATION OF ALLIS' ACUPUNCTURE FORCEPS.

BRONCHO-PULMONARY HEMORRHAGE.

BY EDWARD B. JACKSON, HOUSTON, TEXAS.

The primary causes of hemorrhage proceeding from the bronchi, or lungs, are of such nature as that they may be broadly classed as injuries—namely, violent exertion, traumatism, inhalation of poisonous fumes and irritating particles, straining of the voice, rupture of aneurisms, gangrene and sloughing due to the necrotic ending of inflammations. The secondary causes are those which operate more slowly, and affect the functions or other important organs, often making serious inroads upon the entire constitution—namely, strumous diathesis, with inherited frailty of vessels; cardiac disease, forming clots in the right side, which send out infarcts to produce embolism of the pulmonic terminals; specific and malignant disease, with their tendencies to necrotic invasion; and vicarious transudation of suppressed catamenia. It is most frequently met with in phthisical subjects. In such individuals there is usually the contracted chest wall, the frail vessels, poor lung formation, and consequent want of resistance. It is seen, therefore, that not a great degree of cell proliferation, caseation and softening is required to break away the already weak intima, media, and adventitia—insomuch as there is already constant stasis from surrounding inflammation—the vessels' lumen being seriously encroached upon by deposits in the adjacent connective tissue. Terrific hemoptisis may occur suddenly, and continue until the patient is entirely exsanguinated—and dead. Usually, however, if the gush is free and from a large vessel, continuing until a half gallon or more has escaped, the patient sinks into a faint, and the hemorrhage ceases as suddenly as it began.

The patient is shocked, alarmed and painfully anxious; and often decidedly prostrated and blanched after the flow is staunched. The temperature falls to subnormal; the pulse tension is lowered; the feet are cold; and a gurgling râle in the bronchi is easily heard. After a half day the body recovers its warmth, and probably in two days the temperature in consumptive patients assumes its original evening rise of one or two degrees. There is always danger of succeeding alarming attacks. The writer treated a case only a short while ago in which the symptoms were as above enumerated—sudden loss of

a great amount of blood, followed by shock, syncope, chill; and reaction in six hours; and return of fever in two days as high as ever. On the third day sudden hemorrhage was re-established, and the patient perished almost instantly. Probably a heavy sudden cough rends the necrotic cheesy structures, or tears away peripheral sloughing infarcts, plugging the vessels, or favors the division of larger arteries. After death the body is marble white; infarctions the size of apricots may be numerous; the pulmonary parenchyma is hyperemic and edematous; the cardiac ventricles are empty and contracted; the bronchi may contain clots—in which event the remaining alveoli of the lungs are inflated from impeded expiration. The cavities, made formerly by the excavations of the disease, which are usually present in cases of death from hemoptysis in phthisical patients, are found filled with blood clots.

In the case above mentioned, after removing the clot from a rather small cavity, an exposed ruptured pulmonary vessel was discovered, from which evidently the greater portion of the blood emanated. There is in some cases a degree of warning of the approach of hemoptysis; the heart beat is strong, quick and free; the head is full and dizzy; the chest is oppressed and warm underneath the sternum; and there is a feeling of dyspnea and restlessness. The cough suddenly becomes loose; there is a gurgling sound in the bronchi; and immediately a bright frothy, red fluid is expectorated. It is not probable that a close observer will confound hemoptysis with hematemesis, since the former appears as the result of coughing effort; is frothy and bright; and its appearance is distinctly fresh and unchanged. Hemorrhage from the stomach furnishes dark, grumous blood, mixed with the partially digested contents of that organ, and appears as the result of retching effort.

In cases of hemorrhage from the stomach the blood is ejected through the mouth and nostrils. In hemorrhage from the lungs it is ejected through the mouth only, unless a large vessel is cut in which event it may gush through the nostrils and produce rapid strangulation, and in such cases the color of the blood is dark-venous. If the patient be a female with suppressed periods careful inquiry must be made to decide if the hemorrhage be a vicarious catamenia, and if such be found the case the physician even then need be careful in forecasting the result, since such

cases have many times entered immediately into the phthical state, never again menstruating through the natural outlet, but having irregular attacks of hemoptysis until death ensues from anemia, emaciation and exhaustion. Such cases, we believe, usually are the subjects of phthical tendencies by inheritance. In the examination of a patient just recovering from hemoptysis it should be borne in mind that much agitation of the body—particularly the chest—by flexion, percussion, enforced coughing, respirational strain, counting, talking, may tend to start renewed flow, and should therefore be delayed until there is decided reaction. The pulse may be counted, the temperature registered, and the lungs and heart auscultated without in the least disturbing the much-needed repose of the sufferer, and with this the physician should be contented until the equanimity of circulation is restored. The gums, tonsils and pharynx can usually be examined without discomfort to the patient; not a great while ago a fairly nourished man, a hotel keeper of this city, was almost exsanguinated by hemorrhage from the gums; the flow came on during the night, while he was asleep, and continued after he was aroused until simple faintness relieved him. We tried without avail local and internal styptics and pressure. He was a hemophile. The object sought in the treatment of hemoptysis is to promote complete rest in the recumbent position on the right side or back, with the head and shoulders slightly raised if agreeable to the patient. Until the flow is entirely controlled no questions should be directed, nor should the patient be allowed to speak. Cracked ice may be given freely, and warmth should be applied to the feet. The shock should be overcome with the hypodermic use of morphia alone, since other measures, such as the free use of brandy, may tend to excite circulatory pressure, and thus hasten renewed hemorrhage. Astringents have been variously tried. We customarily cause the patient to carry constantly on his person a lump of alum of the size of a walnut, this to be put into the mouth as soon as blood expectoration starts, and all of the alum saliva swallowed. We also have them carry a phial containing six drachms of ergot and two drachms of digitalis, to be taken in sips of, say, one-half teaspoonful every fifteen minutes until the hemorrhage ceases. If ice bags are to be applied to the chest, they should not remain continuously on, but be alternately

removed for the hot—very hot—water sponge. The chloride of iron in diluted spray has been highly recommended, but we do not believe that it can be of any service if the seat of hemorrhage is below the glottis. Ipecac, because of its “ enfeebling effect of nausea on the heart,” and its tendency to “ produce exsanguination of the lungs ” (Bartholow), has been recommended, “but if the hemorrhage proceed from a cavity filled with clot, already difficult to be maintained in position, ipecac is not to be administered.” We believe it is good practice to let other measures precede the use of ipecac. Oil of turpentine has been highly recommended. We see no objections to its use in doses short of the danger of inducing strangury. After the hemorrhage is controlled, if the bowels should be confined as the result of the free use of astringents, some gentle aperient should be prescribed, and the motions should be received in a bed-pan with as little disturbance to the patient as may be practicable. If there should be some adjacent portion of the lung tissue particularly inclined to constant hyperemia or pneumonia in the vicinity of a cavity, or other form of pulmonic lesion furnishing occasional hemorrhages, counter-irritants in the form of turpentine stupes, mustard plasters, chloroform liniment, croton oil inunctions, or fly-blisters, may be of the greatest service in reducing the general discomfort and local stasis, and may thus often prevent extensive necrotic invasion. The food for a day or two after an attack of hemoptysis should consist solely of cold milk. Gradually thereafter warm foods may be permitted. The patient requires the constant supervision of his physician.

Author's Abstract.

BULLET WOUNDS OF THE ABDOMEN.*

BY W. E. PARKER, M. D., NEW ORLEANS, LA.

Through the writings of Sims, Kinloch, McGuire, Bull, Barrow, Senn, Miles, Coley, Robinson, Kocher, Morton and others

* Original paper read before the Southern Surgical and Gynecological Association.

much has been done to advance this department of surgery. The percentage of recoveries with laparotomy is so much better than without operation that it is no longer a question of, "shall we operate?" but "when shall we operate?" To this question our reply would be, just as soon as the diagnosis and proper arrangements for the operation can be made. While most surgeons are pretty well agreed on this point, there is a great deal to be done in the way of teaching physicians not to "wait for symptoms" before calling the surgeon. We should try to impress the necessity of early operation, and the much improved prognosis in cases so treated.

The diagnosis is, as a rule, made without any special difficulty. Shock may or may not be present, and gives but little indication of the extent of the visceral injury. We have seen several cases in which there was but little shock, and yet there were numerous intestinal perforations. Our experience with these cases has led us to believe, when shock is present to a marked degree, that hemorrhage is associated with it. The most constant symptom that we have observed has been pain referred to the umbilicus. We have never seen a case of penetrating gunshot wound of the abdomen in which this symptom was absent, and of such importance have we learned to regard it that in cases in which the bullet entered between the ribs, and the diagnosis was, therefore, somewhat doubtful, its presence or absence has determined our plan of treatment. If the stomach has been injured, the patient frequently vomits. In any doubtful cases a probe should be introduced along the track of the bullet and the wound enlarged down to the peritoneum, if necessary. Senn's hydrogen-gas test, successful in the hands of its distinguished introducer and other operators, has failed when used by other careful observers, and it seems to the writer that there are several very decided disadvantages to be overcome. Among these may be mentioned the following:

1. But few of us are prepared to use it at once, so some delay would be caused.
2. Fecal matter may be forced by it into the general cavity.
3. It would not show wounds of the solid viscera or mesentery.
4. The distention would cause delay in replacing the intestines and make their reduction more difficult.
5. In a fair proportion of these cases, even if none of the vis-

cera are wounded, the hemorrhage from mesenteric wounds is enough to demand a laparotomy. Several cases in the accompanying table that had no visceral injury had incipient peritonitis when operated upon, and I recall a similar case operated upon by a colleague of this city. These cases would not have been discovered by this test, and yet an early laparotomy was the thing to have been done.

Now, as to the technique.

The incision should be made in the median line, as we can get a better view of the abdominal contents and are not so likely to cause a hernia. However, if the wound is far to one side the incision should be made accordingly. Wounds of the intestines, stomach, bladder and mesentery should be closed with fine Czerny-Lembert sutures. In suturing the intestines the line of sutures should, when possible, be in the long axis of the bowel, as this diminishes the risk of obstruction. Silk is the best suture material here. Even though there may be many perforations of the intestines, the bowel should not be resected unless its calibre is diminished one-half, or there should be a large mesenteric wound near it. When resection is necessary the Murphy button is probably the quickest and best way to do it. It is a wise precaution to examine the bowel from end to end. The best way is to start at the ileo-cecal valve and rapidly pass the small bowel through the fingers. After that the large bowel, if it should be necessary. The incisions in these cases should be large enough to command a good view of the viscera.

Wounds of the liver. As a rule, there is a good deal of hemorrhage with these injuries. Of the two plans of treatment, stitching and packing, we much prefer packing.

If wounded, the gall-bladder should be closed with the Czerny-Lembert suture or stitched to the abdominal wall.

Wounds of the spleen. If the wound is large, a splenectomy is necessary; if the wound is not very large, it should be packed with gauze or sutured, as was done in Tiffany's remarkable case.

Wounds of the kidney. If there is a probability, and there usually is, of any other organs being wounded, laparotomy should be done and these wounds treated in the usual way. If the pelvis has not been injured and the hemorrhage is not great, the kidney should be left and treated extraperitoneally, any necessary drainage being made through the lumbar region; if

the pelvis has been injured or the hemorrhage is great, a nephrectomy should be done at once.

If the ureter is wounded, an end-to-end anastomosis should be tried; if this is not possible, a nephrectomy should be done at once.

If the stomach is full, we believe it a good plan to wash it out, but not until the laparotomy has been completed.

Drainage is indicated in late cases and in those in which we fear hemorrhage. If all hemorrhage has been stopped, we believe that the abdomen should be closed without drainage. Hot water should be freely used in the abdomen during the operation.

The abdominal wound should be closed with through-and-through silver-wire sutures. If asked what two things are specially conducive to success in this class of cases, my reply would be to get into and out of the belly as soon as is consistent with good work, and to use plenty of hot water; these two things lessen shock.

If the bullet is easily found, it should be removed; otherwise it should be left, as a search for it would probably do more harm than the bullet would.

Among several conditions that modify prognosis may be mentioned: 1. The habits of the patient. Unfortunately, many of these patients are alcoholics and under the influence of alcohol when we get them. 2. The condition of the alimentary canal. All operators are agreed that if the alimentary canal is empty the prognosis is improved. 3. The age of the patient. Young adults stand these operations better than the old or very young. 4. The physique of the patient. Very fat people do not stand these operations so well as those of good physique or the lean. 5. The larger the bullet the larger the wound. Therefore, the prognosis is more grave.

After-treatment. The after-treatment of cases of gunshot wounds of the abdomen is as important as anything connected with this class of cases.

If the stomach has not been wounded and is quiet, we commence with teaspoonful doses of Ducro's elixir hourly at the end of the first twenty-four hours. If the stomach is unsettled or has been wounded, all feeding should be done by the bowel. If the large intestine has been wounded and the stomach is

unsettled, food should be withheld for a time. During the first few days but little nourishment should be given by the stomach, and nothing but liquids for at least ten days. During this time chicken, beef or mutton broth, milk with lime water and Ducro's elixir or some of the beef peptonoids should be given. When solids are commenced they should be given very cautiously. It is necessary to give alcohol to alcoholics. Probably the best way is to give brandy hypodermically during the earlier days after the operation.

It has been our practice to give strychnin in all cases. If the heart is fast or weak, the tincture of digitalis has been freely used. For the collapse and copious sweating that is sometimes seen in these cases soon after the operation, nothing, in our opinion, equals the sulphate of atropin. We have generally given this in doses of gr. 1-60, repeated if necessary.

Opiates should not, under ordinary circumstances, be used; but if the patient is restless and suffering soon after the operation, a sixth of a grain of morphin should be given.

Ordinarily the bowels will move spontaneously on the sixth or seventh day. If they do not, an enema should be given about the eighth day. If they still do not act satisfactorily, a gentle purgative in broken doses should be given. When a purgative is necessary we use the sulphate of magnesium in doses of a teaspoonful every half hour until the bowels act.

In conclusion, we would like to quote and endorse the following little extract from Miles' paper, published about four years ago: "If the operation of enterorrhaphy be done before general peritonitis supervenes, and done quickly, cleanly and thoroughly, with judicious after-treatment, the patient has more than even chance for recovery now, and surely these chances will be improved in coming years."

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

PASSENGER SHIPS SHOULD HAVE PHYSICIANS.

The transatlantic steamers all have a doctor as one of their officers. This is not only because they wish to advertise this additional safeguard toward the comfort and safety of their passengers, but because European countries will not allow them to carry human freight unless they carry medical aid. Competition, in their case, might even be a sufficient factor, but as this incentive is usually lacking as far as our coast ocean transportation is concerned, Congress should be appealed to in proper season in order that it may pass a law covering the case.

All sea-going vessels whose voyages ordinarily last, say, two days or more, and who regularly carry passengers, should be compelled to have a physician on board during such trips. Many of our coastwise ships are out as long as those going across the Atlantic, and carry a large number of precious human lives. Why should all the latter be exposed to attacks of illness and to injuries from accident, without the possibility of proper attention for days? During heavy weather it is so easy for people to receive bruises or cuts, and even a fracture, at the time of a sudden lunge. Again, an improperly cooked dish or some poisoned canned stuff could so readily prostrate a number of persons with choleraic symptoms!

Recently a distinguished and beloved prelate of this city died on ship-board, on the second day out going from New Orleans to New York, under circumstances that must have been heart-rending to those close to him, and were certainly distressingly painful to all who loved or esteemed him. Ailing when the voyage began, he became worse some hours later and finally succumbed, after a good deal of physical suffering, without having received the slightest professional aid; from the standpoint of medical assistance, the lowest steerage passenger on a

transatlantic vessel would have fared better. Who knows if that valuable life could not have been tided over a critical moment, until perhaps the rest and the bracing breezes might have brought back health, or, at least, have enabled the sufferer to reach his home and his people to die amid the surroundings for which he yearned?

The above is a sorrowful scene that must be repeated from time to time; also a great deal of avoidable suffering must frequently swell the list of ills which might be prevented if a physician were carried on each passenger ship. We recall a trip where we were the only physician on board of such a vessel a few years ago and, without counting a few cases of severe seasickness, there were two passengers ill enough to require our services and one of them sufficiently so as to have been in great danger had he not had some professional care. Almost every physician who has traveled on one of our coast steamers can relate an analogous experience. Imagine how frequently such things must occur when there is *no* doctor even among the passengers.

It will scarcely be claimed that doctors are scarce. We venture to prophesy that a sufficient number of skilled men could be secured in short order at reasonable salaries. Then why delay? The ship companies would not be much out of pocket—a slight increase in passenger rates would cover the difference; the overcrowded profession would be benefited by having these outlets offered; the passenger, especially, would profit by having his mind more at ease and his physical discomforts attended to. *Let us have a law.*

THE THOMSON CASE IN PARIS.

Our readers have no doubt seen in the newspapers the mention of the conviction of Drs. Boisieux and de La Jarrige, in Paris, for having committed abortion on a Mrs. Thomson, employed at a celebrated milliner's and the mistress of a married man. The death of the woman and the suicide of the lover led to the prosecution and added sensational features to the affair.

We have just read in a recent number of *La Revue Médicale*, of Paris, a complete stenographic report of the entire trial. This perusal resulted in a number of surprises. We regret not

having the space to give a *résumé* of the testimony and argument. The testimony admitted was in great part such as would never have been tolerated in this country—hearsay evidence, irrelevant tales; every case the unfortunate Boisleux had ever operated upon, with a fatal termination, was dragged in, and the prejudices and biased views of relatives and friends were given weight; nay, one poor body, buried for over a year, was exhumed in order to be examined by the official expert; by the way, this showed nothing unfavorable to Boisleux.

Miss Thomson is sent to Boisleux by de La Jarrige for a supposed case of metritis requiring curettage. Boisleux operates after only a superficial examination, assisted by de La Jarrige, another confrère, his female assistant and a coachman. After beginning the curettage he finds and exclaims that the uterus is gravid; a perforation of the uterus results, a laparotomy is proposed, is rejected by the lover most emphatically and threateningly, is finally performed, after peritonitis has set in, and the unhappy woman dies.

This, in brief, is the history of the chief act. There is absolutely no proof to show that Boisleux knew the woman was pregnant, or that he had planned to produce an abortion. There was at the very least a reasonable doubt as to any criminal intent and the worst that to us could be positively said was that the operator was careless in not having made a sufficient examination and unfortunate as to the result of the interference. He would not in all likelihood have summoned so many witnesses to a criminal act and, we believe, would have selected a different procedure, with all deference to Dr. Brouardel, who, as an expert, stated that curettage was one of the latest and best methods for similar cases.

It seems to us that Dr. Boisleux and de La Jarrige were used as examples, perhaps, to deter others from acting either inconsiderately or criminally in a like manner in a country which is now bewailing its low birth-rate. They were both sentenced to five years of imprisonment. The jury, according to the French law, were put two questions: "Did Drs. B. and J. produce abortion in this case?" "Were they physicians at the time?" Naturally the answers were in the affirmative. Thereupon they were sentenced as above. Nothing was said about the intent or criminality, or as to whether the act was accidental or one of

carelessness. We believe that in an American court they would have been acquitted, unless, perhaps, punished for negligence. We prefer our way. No doubt a greater number of the guilty escape, but fewer of the innocent suffer.

A PRESCRIBING DRUGGIST PUNISHED.

In Toledo, Ohio, Judge Webster has rendered the decision that the selling and recommending of a medicine by a druggist is prescribing for a disease, and hence, practising medicine without a license, under the medical laws of Ohio. There is so much of the plain, honest common sense in this decision that we are surprised that it should have provoked any question in the minds of the local legal talent.

One Harrison Reese, of Toledo, was fined \$50 and costs for handing out a bottle of medicine and saying it was good for the disease of which the customer complained (*Indiana Medical Journal* for June). The druggist made the medicine himself and had sold lots of it.

The public prosecutor withdrew from the case, saying that the State Medical Board had no case. The attorney for the board, however, pushed the prosecution with the above results.

The victory of the Ohio Board and the just decision of the judge make an excellent object lesson for our Louisiana State Board, whose act specifically provides for a like opportunity of punishing druggists who would be doctors. The average druggist is absolutely unconscious of any obligation to the medical profession or the public, when it comes to the curtailment of his profit from the dispensary department of his business. This profit is by no means small, and the druggist has acquired a distinct moral obliquity so far as his knowledge of his right to infringe on the doctor's domain, and his right to take the responsibility of human life in his hands is concerned. It is bad enough that he should pass such poisons as opium and cocain over his counter without a prescription, but how much more criminal to pass over worthless concoctions, often containing poisons, without either a prescription or a diagnosis. Here in New Orleans, the druggists do this sort of thing flagrantly, even advertise their nostrums, and have no compunc-

tion in assuring the patient that they know better what to give than the patient's physician does.

To the druggist, the physician is a useful institution as contributing to the annual income of his establishment in the prescription department, which often is in the hands of an incompetent clerk, ready to use what he has in the shop to fill a prescription which calls for something else, just so long as the result looks the same. The druggist should be made to know that he is only a tradesman licensed to sell certain supplies in his stock, and legally qualified to dispense certain commodities, compounded by him under the direction (acquired by law) of the physician.

We ought to make a few examples of druggist malefactors in our own community, and thereby force a moral plane which those druggists among us in possession of a conscience would try to maintain.

Medical News Items.

THE INTERNATIONAL MEDICAL CONGRESS AT MOSCOW will be attended by two of New Orleans' distinguished physicians. Dr. Chas. Chassaignac has gone as the delegate from New Orleans, with credentials from the Mayor; Dr. P. E. Archinard as delegate from the State Board of Health. Both these gentlemen will represent the State and Orleans Parish Medical Societies, and, as president and vice president respectively, the New Orleans Polyclinic.

DR. S. M. FORTIER has left for a vacation in the North. His trip will include a visit to New York City and a rest in Canada.

DR. GEO. C. KREEGER has returned to New Orleans to live.

DR. FLOYD STEWART, formerly of St. Louis, has made New Orleans his home.

THE JOURNAL desires to thank its many friends for the various kind expressions regarding the jubilee number.

PROF. S. E. CHAILLÉ, the respected Dean of Tulane Medical Department, has recovered from his recent illness, and has left for Asheville for the summer months.

“FURTHER PREVENTION OF CRUELTY TO ANIMALS” is the excuse for a bill before the United States Senate aimed at vivisection and, consequently, at scientific investigation in which this method of experimentation is essential. The medical profession all over the Union is naturally indignant at this attempted legislation, and protests and petitions are being directed at the Senate, through the various representatives. New Orleans has protested through its medical educational institutions—the Tulane Medical Department and the New Orleans Polyclinic, and through the Orleans Parish Medical Society. These petitions have been directed to the Louisiana delegation at Washington, and not without result. We are assured by our representatives in the House, Hon. R. C. Davey, Hon. S. M. Robertson and Hon. Adolph Meyer, and by the Hon. S. D. McEnery in the Senate, that when the bill comes up the will of our local profession will receive support. It seems hard to believe that such a bill should pass our national legislative body at this age of enlightenment.

AN ARMY MEDICAL BOARD will be in session at Washington City, D. C., during October, 1897, for the examination of candidates for appointment to the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the board will make application to the Secretary of War before September 1, 1897, for the necessary invitation, giving the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from which they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal acquaintance, from at least two reputable persons, as to his citizenship, character and habits. The candidate must be between 22 and 29 years of age, and a graduate from a regular medical college, as evidence of which, his diploma must be submitted to the board. Successful candidates at the coming examination will be given a course of instruction at the next session of the

Army Medical School, beginning November 1, 1897. Further information regarding the examinations may be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

There are now five vacancies in the Medical Corps.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will hold its next meeting in Louisville on October 5, 6, 7 and 8, 1897. All railroads will offer reduced rates. The President, Dr. Thos. Hunt Stucky, and the Chairman of the Committee of Arrangements, Dr. H. Horace Grant, promise that the meeting will be the most successful in the history of the Association, and this promise is warranted by the well-known hospitality of Louisville and Kentucky doctors. Titles of papers should be sent to the Secretary, Dr. H. W. Loeb, 3559 Olive street, St. Louis.

THE AMERICAN PUBLIC HEALTH ASSOCIATION, including the United States of America, the Dominion of Canada and the Republic of Mexico, will hold their twenty-fifth annual meeting at Philadelphia, October 26, 27, 28, 29, 1897.

The Executive Committee have selected the following topics for consideration :

I. The Pollution of Water Supplies. II. The Disposal of Garbage and Refuse. III. Animal Diseases and Animal Food. IV. Car Sanitation. V. Steamship and Steamboat Sanitation. VI. The Prevention of the Spread of Yellow Fever. VII. The Transportation and Disposal of the Dead. VIII. The Relation of Forestry to Public Health. IX. Nomenclature of Diseases and Forms of Statistics. X. Cause and Prevention of Infectious Diseases. XI. Public Health Legislation. XII. Cause and Prevention of Infant Mortality. XIII. Transportation of Diseased Tissues by Mail. XIV. River Conservancy Boards of Supervision. XV. The Period during which each Contagious Disease is Transmissible, and the Length of Time for which each Patient is Dangerous to the Community. XVI. Sanitation, with special reference to Drainage, Plumbing, and Ventilation of Public and Private Buildings. XVII. Some Method of International Arrangement for Protection against the Transmission of Infectious Diseases. XVIII. Disinfectants. XIX. Existing Sanitary Municipal Organizations of the Countries belonging to the Association, with a view to a Report upon those Most Successful in Practical Results.

Upon all the above subjects special committees have been appointed. Papers will be received upon other sanitary and hygienic subjects also.

THE GAZETTE MÉDICALE DE LIÉGE will hereafter be edited and managed by Dr. L. Merveille, of Liége, who succeeds Dr. Brasseur, the latter retiring on account of ill health.

THE COMMENCEMENT OF THE KENTUCKY SCHOOL OF MEDICINE was held on June 30, 1897, at McCauley's Theatre, Louisville, Ky. The alumni address, consisting principally of reminiscences of the *personnel* of the faculty during the earlier years of the institution, was delivered by Prof. J. A. Ireland, M.D. The doctorate address, the feature of the evening, was rendered by Governor Atkinson, of West Virginia. The valedictory was an eloquent effort by Dr. P. H. McLaughlin. The dean of the college is Prof. P. Woody. The graduating class numbered over eighty, and some half a dozen prizes were awarded.

THE ELEVENTH ANNUAL ANNOUNCEMENT OF THE NEW ORLEANS POLYCLINIC is out. The covers of the neat pamphlet carry cuts of the Polyclinic and of the Charity Hospital, while inside there are cuts illustrating the amphitheatre, and the clinics of the Eye, Ear, Nose and Throat Hospital. Several changes have been made in the text of the announcement and in the rates offered. Attention is called to the attractions of New Orleans during the winter and of the climatic advantages. The officers of the school are Dr. Charles Chassaignac, M. D., president; Dr. P. E. Archinard, M. D., vice president; Dr. Isadore Dyer, M. D., secretary and treasurer. Dr. E. D. Martin has been added to the faculty as Professor of Clinical and Minor Surgery.

A PHYSICIAN'S CONFERENCE was held at the Louisiana Chautauqua on July 13, 1897, which was quite a success. There was an address by Dr. F. M. Thornhill, of Arcadia, La.; a paper on the influence of the mind over the body, by Dr. Randell Hunt, of Shreveport, La.; a paper entitled "Moral and Social Standing of the Medical Profession," by Dr. J. Atkinson, Arcadia, La.; a paper on the duty of physicians to their patients, etc., by Dr. T. E. Schumpert, Shreveport, La., and a paper by Dr. J. F. Griffin, Shreveport, La., entitled "The Triumphs of Chemistry."

STUDY OF THE AMERICAN MEDICINAL FLORA.—The Sub-Commission of the Pan-American Medical Congress appointed to study the medicinal plants of the United States has entered into an association with the Smithsonian Institution for that purpose. The attention of our readers is called to the respective circulars issued by these organizations, which we print below:

SMITHSONIAN INSTITUTE, }
Washington, D. C., May 28, 1897. }

Dear Sir—The Smithsonian Institution has undertaken to bring together all possible material bearing on the medicinal uses of plants in the United States. Arrangements have been made with a body representing the Pan-American Medical Congress, the Sub-Commission on Medicinal Flora of the United States, to elaborate a report on this subject, and the material when received will be turned over to them for investigation.

The accompanying detailed instructions relative to specimens and notes have been prepared by the Sub-Commission.

All packages and correspondence should be addressed to the SMITHSONIAN INSTITUTE, Washington, D. C., and marked on the outside *Medicinal Plants for the U. S. National Museum*.

Franks which will carry specimens, when of suitable size, together with descriptions and notes, free of postage through the mails, will be forwarded upon application. Should an object be too large for transmission by mail the sender is requested, before shipping it, to notify the Institution in order that a proper authorization for its shipment may be made out.

Respectfully,

(Signed)

S. P. LANGLEY, *Secretary*.

Instructions Relative to Medicinal Plants.—The Pan-American Medical Congress, at its meeting held in the city of Mexico, in November, 1896, took steps to institute a systematic study of the American medicinal flora, through the medium of a general commission and of special sub-commissions, the latter to be organized in the several countries. The sub-commission for the United States has been formed and consists of Dr. Valery Havard, U. S. A., chairman; Mr. Frederick V. Coville, botanist of the United States Department of Agriculture; Dr. C. F. Millspaugh, curator of the Botanical Department of the Field Columbian Museum, Chicago; Dr. Charles Mohr, State Botanist

of Alabama; Dr. W. P. Wilson, director of the Philadelphia Commercial Museums, and Prof. H. H. Rusby, of the New York College of Pharmacy. This sub-commission solicits information concerning the medicinal plants of the United States from every one in a position to accord it. The principal points of study are as follows:

1. Local names.
2. Local uses, together with historical facts.
3. Geographical distribution and degree of abundance in the wild state.
4. Is the plant collected for market, and if so, (a) At what season of the year? (b) To how great an extent? (c) How prepared for market? (d) What is the effect of such collection upon the wild supply? (e) What price does it bring? (f) Is the industry profitable?
5. Is the plant, or has it ever been cultivated, and if so give all information on the subject, particularly as to whether such supplies are of superior quality, and whether the industry has proved profitable.
6. If not cultivated, present facts concerning the life history of the plant which might aid in determining methods of cultivation?
7. Is the drug subjected to substitution or adulteration, and if so, give information as to the plants used for this purpose.

While it is not expected that many persons will be able to contribute information on all these points concerning any plant, it is hoped that a large number of persons will be willing to communicate such partial knowledge as they possess.

It is not the important or standard drugs alone concerning which information is sought. The sub-commission desires to compile a complete list of the plants which have been used medicinally, however trivial such use may be. It also desires to collect all obtainable information, historical, scientific and economic, concerning our native and naturalized plants of this class, and to that end invites the co-operation of all persons interested. Poisonous plants of all kinds come within the scope of our inquiry, whether producing dangerous symptoms in man, or simply skin inflammation, or, as "loco-weeds," deleterious to horses, cattle and sheep. In this respect, the general reputation of a plant is not so much desired as the particulars of cases of poison actually seen, or heard from reliable observers. It is believed that much interesting knowledge can be obtained from Indians, Mexicans and half-breeds, and that, consequently, Indian agencies and reservations are particularly favorable fields

for our investigation. Such knowledge will be most acceptable, when based upon known facts or experiments.

In order to assist in the study of the habits, properties and uses of medicinal plants, the sub-commission undertakes to furnish the name of any plant-specimen received, together with any desired information available.

Owing to the diversity in the common names of many plants it will be necessary for reports, when not furnished by botanists or others qualified to state the botanical names with certainty, to accompany the same with some specimen of the plant sufficient for its identification. While the Sub-Commission will endeavor to determine the plant from any portion of it which may be sent, it should be appreciated that the labor of identification is very greatly decreased, and its usefulness increased by the possession of complete material, that is, leaf, flower and fruit, and in the case of small plants, the underground portion also. It is best to dry such specimens thoroughly, in a flat condition under pressure, before mailing. While any convenient means for accomplishing this result may be employed, the following procedure is recommended: Select a flowering or fruiting branch, as the case may be, which when pressed shall not exceed 16 inches in length by 10 inches in width. If the plant be an herb 2 or 3 feet high, it may be doubled to bring it within these measurements. If it possess root leaves, some of these should be included. Lay the specimen flat in a fold of newspaper and place this in a pile of newspapers, carpet felting, or some other form of paper which readily absorbs moisture, and place the pile in a dry place under a pressure of about twenty to thirty pounds, sufficient to keep the leaves from wrinkling as they dry. If a number of specimens are pressed at the same time, each is to be separated from the others by three or four folded newspapers or an equivalent in other kinds of paper. In twelve to twenty-four hours these papers will be found saturated with the absorbed moisture and the fold containing the specimen should be transferred to dry ones. This change should be repeated for from two to five days according to the state of the weather, the place where the drying is done, the fleshiness of the specimens; etc. The best way to secure the required pressure is by means of a pair of strong straps, though weights will do. The best place for drying is beside a hot kitchen range. When

dry the specimens should be mailed between cardboards or some other light but stiff materials which will not bend in transit.

It is a most important matter that the name and address of the sender should be attached to the package and that the specimens, if more than one, should be numbered, the sender retaining also specimens bearing the same number, to facilitate any correspondence which may follow. The Sub-Commission requests that, so far as practicable, all plants sent be represented by at least four specimens.

(Signed)

H. H. RUSBY, M. D.,

Chairman of the General Commission, New York College of Pharmacy.

VALÉRY HAVARD, M. D.,

Chairman of the Sub-Commission, Fort Slocum, Davids Island, New York.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

DESTRUCTION OF GASSERIAN GANGLION FOR NEURALGIA.

Gérard Marchant and H. Herbet in *La Médecine Moderne* (April 17, 1897), commenting on the resection of the Gasserian ganglion for inveterate neuralgias, say that the pain immediately ceases after operation, but that general sensibility is abolished along the three divisions, notably involving the second and third branches; this anesthesia, however, is of short duration.

Taste, smell, sight and hearing are diversely impaired. The movements of the jaw may be impeded.

Therapeutically, recurrence is less frequent after destruction of the ganglion than following simple section of branches.

For the present, complete extirpation does not appear to possess any advantage over the simple destruction of the ganglion.

Roughly stated, the mortality was seventeen for ninety-five operations, viz. : sixty-six cases operated through temporal region resulted in eleven deaths (three of which were doubtful) making a mortality of about 12 per cent. ; twenty-nine operations by the pterygoid route, six deaths, or about 20 per cent. ; fifteen cases of complete extirpation, five deaths (three of which disputed), or about 13 per cent. ; sixty cases of partial extirpation, eight deaths, or about 13 per cent. ; fifteen cases of simple resection of branches, one death, or 6.5 per cent.

CONDITION RESEMBLING MYXEDEMA FOLLOWING SIMPLE THYROID DRAINAGE.

M. Loyson, in *Lyon Médical* (May 16, 1897), relates the case of a woman with cystic goitre, who, after being treated by simple drainage (according to Daniel Mollière), presented during the subsequent month a swelling of the hands and feet, resembling myxedema.

The patient complained of creeping sensations in the edematous parts; sensation was slightly diminished. The growth of the nails was simultaneously arrested. M. Loyson compares this condition to myxedema.

SPINA-BIFIDA OR SACRO-COCCYGEAL TUMOR.

M. Pont, in *Lyon Médical* (April 25, 1897), presented from M. Pollosson's ward a child six months old with a sacro-coccygeal tumor, which at birth was the size of a large orange. It had developed so rapidly that now it was as large as an adult head, multilobular, with very thin overlying skin.

Palpation revealed fluctuating pouches at its lower portion; the upper cartilaginous, the inferior part only was transparent. The underlying bony structures did not seem to be altered, the sacral spinous line, easily felt above, might be bifid below.

Pont discusses the diagnosis between a spina-bifida and a mixed sacro-coccygeal tumor. The infrequency of sacral spina bifida, the consistency of the tumor, its rapid progress and the impossible reduction tend toward the second idea. Mr. Gangolphe perceived a certain amount of disassociation of the sacral vertebra. He believed it to be a congenital tumor and advised

operation with great precaution not to wound the rectum. Mr. Delore thought the case one of fetal inclusion and considered operative interference too serious from shock and hemorrhage.

TO PREVENT SOFTENING OF PLASTER CORSETS IN HOT WEATHER.

We have all experienced the difficulty of maintaining the efficacy of a plaster jacket in the hot months owing to the fact that the perspiration very soon saturates and softens the plaster. To overcome this difficulty Ferdinand Bähr describes in *Centrbl. für Chir.* for May 29, 1897, a method which makes it possible to wear the corset for a much longer period. His method consists in putting on first a layer of gutta percha, which thus lines the inner surface of the corset, and being impermeable to moisture, keeps the plaster bandage dry and firm.

RESULTS OF THE RADICAL OPERATIONS FOR HERNIA.

Professor Kocher, of Bern, in the May 15, 1897, *Centrbl. f. Chir.*, takes issue with Coley for asserting that other operations for Hernia than that of Bassini give good results only in the hands of their devisors, but that for others they have little value.

Kocher disproves this by quoting statistics of 111 cases, operated upon not only by himself, but by others, particularly young surgeons, formerly his assistants.

Candidate for graduation Lebendsohn has just collected in his thesis the results of 197 operations taken from Kocher's Case-Histories. These were done in 1894, 1895 and the first part of 1896. Of the number, 103 were external inguinal herniæ, in which he carried out his method by lateral displacement of the cord. Primary union took place in 91.3 per cent. and the patients were discharged after, on the average, 10.7 days. In 8.7 per cent. the healing was delayed by suppuration, being on the average 32.6 days. Large ruptures required a longer time for healing and age seemed to have a perceptible influence, individuals over 35 years of age taking four days longer as a rule for healing.

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Obstetrics and Gynecology.

MINARD, New Orleans.

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held. The mitral orifice was found to be normal in only one case; in the other three, it was the seat of lesions similar to those found at the aortic orifice.

CASE I. A child—systolic murmur at the apex, musical in character. Autopsy: Aortic orifice markedly constricted, mitral orifice normal. To account for the existence of the systolic apex murmur there must have been a dilatation of the left ventricle as a result of the aortic stenosis, and this dilatation allowed the blood to flow back into the auricle at each systole of the left ventricle.

CASE II. A man, admitted to the hospital with all the symptoms of aortic stenosis. During the course of treatment was heard at the apex a sharp and high-pitched systolic murmur. Autopsy: Hypertrophy of the heart in general, but chiefly the left ventricle. Pericardium completely obliterated by old adhesions. Aortic orifice narrowed by fibrous growths of old standing. Mitral orifice covered with growths, and also constricted.

CASE III. An old man. Systolic apex murmur. Autopsy: Aortic valves calcified, aortic orifice contracted. Mitral valves thickened.

CASE IV. A man, 54 years old. Systolic apex murmur, musical in character. Autopsy: General hypertrophy of the heart. Aortic orifice almost completely obliterated, partly by old, partly by recent fibrous growths. The edges of the mitral and tricuspid valves were thickened. In all these cases there existed, as a result of the aortic stenosis, an increased intraventricular tension which at each ventricular systole caused the blood to flow back toward the auricle.

Dr. Norman Moore, while he accepted Dr. Dickinson's interpretation, thought that if the systolic murmur heard at the apex was also heard at the interior angle of the left scapula it meant mitral insufficiency, otherwise it might indicate trouble at the aortic orifice. And, if the systolic murmur was heard at the apex and at the base, suggesting mitral insufficiency with aortic stenosis together, such diagnosis, however, should be accepted only if the murmurs were heard at the inferior angle of the left scapula and over the right supra-spinous fossa. If the murmur was heard only over the right supra-spinous fossa, it rather meant aortic stenosis without mitral insufficiency.—*Gazette Hebdomadaire.*

RELATION BETWEEN DIABETES MELLITUS AND DIABETES INSIPIDUS.—Dr. Senator (*Medical Society of Berlin*) thought that there existed a close relation between diabetes mellitus and insipidus, and he based his opinion upon physiologic and experimental facts, the part which in both diseases the nervous system plays, and the well-known fact that polyuria is gradually transformed into diabetes, a fact which he himself had observed in several cases.

CASE I. A laborer, whose father had died of myelitis, was affected with diabetes mellitus for several years. One day he suffered from an attack of fever, and his case of diabetes was transformed into simple polyuria.

CASE II. A woman, 66 years old, from gouty stock, had glycosuria, 1.2 per 100 sugar in urine. Under the influence of repeated water-cures at Carlsbad, sugar disappeared from her urine, but polyuria persisted.

CASE III. A complicated case. A woman, 39 years old, in whose family were six cases of diabetes mellitus, had diabetes herself, 0.3 to 0.5 per 100 sugar in her urine. Under the influence of diet and repeated water-cures at Carlsbad, sugar and also polyuria disappeared. Some time afterward this woman presented edema of the lower extremities. In her urine, which was not passed in larger quantity, no sugar was found, but albumin was present. Shortly after, her thirst increased and polyuria reappeared.

CASE IV. Same occurrence; first there were glycosuria and polyuria, then albuminuria without polyuria; finally simple polyuria, which in course of time also disappeared, as in the preceding case. Cases in which simple polyuria is transformed into glycosuria are more serious. A woman, 43 years old, had since childhood simple polyuria. She passed from 12 to 15 litres in 24 hours, density oscillating between 1.001 and 1.003. Three years ago sugar first made its appearance, 0.3 per 100 in urine. Her general condition, which was excellent up to that time, broke down and she was enormously reduced in flesh.

The alternating appearance of glycosuria and polyuria in the same patient has been pointed out by Westphal. According to Senator all these facts evidently prove a relation between diabetes and polyuria.—*Ibid*.

DR. RENDU'S CASE.—The case which Dr. Rendu, of Paris, reported recently before the Académie de Médecine, a man developing acute ascending myelitis while he was under a preventive treatment against rabies, has caused quite a stir. But, it appeared subsequently that it was a misinterpretation. The man suffered with infectious myelitis due to septic inoculation from a dissection wound and not to the antirabic treatment. Nor was his paralysis due to rabies itself.

The history of his case is clear enough. While assisting at the autopsy of a man who had died of severe rabies at the hospital (*Hôpital Necker*), where he was the dead-house employee, he happened to prick his finger. The opinion that he should take the antirabic treatment without delay prevailed, and while under this treatment myelitis developed on the eleventh day from the time he wounded himself.

The treatment consisting in hypodermic injections of stronger and stronger emulsion of medulla (from three cubic centimeters of a fourteen day medulla emulsion to two cubic centimeters of a two day medulla emulsion) was continued, however, and instead of growing worse he got better and *finally recovered*.

In the absence of the other chief symptoms of rabies, viz. : pharyngeal spasm, difficult deglutition, hyperesthesia of the senses, it was not thought that his case of paralysis was due to rabies itself. And, as regards the antirabic treatment causing paralysis, it is all-important to announce that such can not be the case, and it should be given publicity, too. Why, twenty thousand (20,000) people have been, up to now, under the antirabic treatment, without ever showing any sign of paralysis.

We know that a wound at autopsy is septic enough to cause infectious myelitis, and hysteria also can bring on paraplegia or any other paresis and paralysis under such circumstances.—*Bull. Acad. de Méd.*

WHOOPIING-COUGH AND PHARYNGEAL COUGH.

Dr. Schiffers, at a meeting of the *Société Médico-Chirurgicale de Liège*, Belgium, during a discussion on the successful treatment of whooping-cough with resorcin, presented by Dr. Roskam, laid stress on the pharyngeal cough which closely simulates the cough peculiar to pertussis.

It is like the latter, violent, convulsive, at times extremely prolonged, though not so in a single paroxysm, as in confirmed pertussis, but in a series of repeated fits. These exacerbations come on through the day or the night.

It may be dry or it may raise tenacious mucus with nausea and vomiting. As a careful examination of the chest reveals no physical signs of bronchitis the diagnosis of "nervous cough" is forthcoming. Such a mistake is avoided by examining the throat. Then, in almost every instance, one finds either some spots of inflammation on the pillars, the tonsils, or some pharyngeal granulations, but chiefly a long streak of muco-pus extending from the cavium of the pharynx down its posterior wall, all of which circumstances are causes of violent reflexes. The mistake in diagnosis accounts for the failure here of our chief drugs in cough cases, while not infrequently a single local application to the pharynx of either resorcin, menthol, cocain or iodine sweeps off the fits of coughing, as it were by enchantment. Of course, the pharyngeal catarrh, simple or complicated with adenoids, must be treated.

It is interesting to know that this pharyngeal cough may follow an attack of pertussis, and apparently give to the latter a duration which it actually has not. The rhino-pharyngeal catarrh created or aggravated by the attack of pertussis will prolong the spasmodic cough long after the primitive infection is eradicated, and as long as no local application to the pharynx will stop the apparently endless whooping-cough. Such instances are frequently met with in practice among children. Cases are on record of little stubborn coughers, with a remarkable proneness to catch cold, who were rid of their everlasting "bronchitis" at the hands of a throat specialist after a few local applications. [*Procul, O procul este, profani!*]

Adults, too, may suffer with pharyngeal cough, and here it is at first mistaken for a "nervous cough," as Dr. Scheffers stated. "Now," says the doctor, "this is too bad. What is cough if not a nervous phenomenon, a reflex? The common error lies in the habit of looking for its origin in the lungs exclusively, whereas the upper air passages are often the seat of the trouble."

The expression "nervous cough" is proper, but it belongs to the vocabulary of neuropathy, hysteria, for instance. There exists occasionally, though rarely, a genuine nervous cough con-

nected with hysteria, and, like vomiting or hiccough due to the same cause, it may be easily differentiated.

Dr. Jacquin, of Reims, France, at the meeting of the *Société d'Otologie, de Laryngologie et de Rhinologie* (May, 1897), has spoken on the same subject, and reported a case *ad hoc*.

Department of Therapeutics.

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

THE USE OF GELSEMIUM.—Dr. Talley calls attention to the value of gelsemium for the relief of ovarian pains, due to no apparent change in the position or structure of the ovary. The fluid extract is the most desirable preparation, given in one or two drop doses combined with a drachm of the fluid extract of viburnum prunifolium, to be repeated four times daily. Gelsemium is one of the best remedies for the relief of “cold in the head;” drop doses of the fluid extract, given hourly, will usually secure the best possible results. Given with quinine, gelsemium prevents ringing in the ears. The physiologic effects are ptosis and dimness of vision, which, however, are readily dissipated by means of amyl nitrite or small doses of spirituous liquor.—*Coll. and Clin. Rec.—Med. Rev. of Reviews.—Med. Age.*

THEOBROMIN is one of the best and most reliable and constant of diuretics in the treatment of anasarca or edema associated with affections of the heart or kidneys. It is a direct diuretic, acting at once on the renal epithelium, exciting and increasing the function of the latter without altering it.

Theobromin is especially effective in cases in which there is both cardiac and renal sclerosis, in valvular disease complicated with albuminuria, or at the stage of asystole, and in interstitial parenchymatous nephritis. The diuretic effects of the drug is not increased by combining it with digitalin and caffeine, or with lactose. In order to prolong the effect it is advisable, especially in cardiac disease, to give theobromin for six days, and to follow up the last dose in a few days by 0.0005 to 0.001

gramme (1-130 to 1-64 grain) of digitalin for one day. The diuresis caused by theobromin is rapid, occurring on the first day of its administration and persisting for two to four days after the last dose. There are no cumulative effects, more than 3 grammes (46 grains) producing, in certain persons, headache, nausea and vomiting, but rarely cerebral excitement. An average dose is from 2 to 3 grammes (31 to 46 grains), in wafers, containing 0.50 gramme ($7\frac{3}{4}$ grains). Larger doses, 4 to 5 grammes (1 to $1\frac{1}{4}$ drachms), are without danger, and are often employed. In infectious diseases, in which the examination of urine is of great importance, as well as in severe forms of hepatic disease, in which the hepatic cells are involved, milk diet combined with theobromin, in daily doses of 2 to 3 grammes (31 to 46 grains), produces excellent results by insuring and increasing diuresis.—*Huchard, Bull. Gén. de Thér.—Univ. Med. Jour.*

FERRIPYRIN (Ferropyrin), the new hemostatic compound of last year, consisting of 64 per cent. antipyrin, 24 per cent. chlorin and 12 per cent. iron, still receives attention and continues to give satisfaction, at least in the hands of those who choose to report their experience. Only two prominent observers apparently, have thought well of reporting. Dr. Hans Degle, of Kindberg, Austro-Hungary, finds that it not only ameliorates the neuralgic pain of anemic patients, but it appears to cure some forms of neuralgia which are independent of anemia. He has obtained satisfactory results from a case of sciatic neuralgia, which would not respond to either electricity or large doses of antipyrin and phenacetin. He uses larger doses than others have used; a tablespoonful three times a day of a solution of 1 or 1.5 grammes (15.4 or 23.1 grains) of ferripyrin to 200 grammes (about 7 ounces) of water. He approves Dr. W. Cubasch's combination, with pepsin and hydrochloric acid to facilitate its action in the digestive tract.—*Ephemeris.*

BOUGARD'S PASTE FOR CANCEROUS GROWTHS.—

Wheat flour	60 grammes.
Starch	60 “
Arsenic	1 “
Cinnabar	5 “
Sal ammoniac	5 “
Corrosive sublimate	0.50 centigramme.
Solution of chloride of zinc at 20 C.....	245 grammes.

The first six substances are separately ground and reduced to

a fine powder. They are then mixed in a mortar, and the solution of chloride of zinc is slowly poured in, while the contents are kept rapidly moved with the pestle so that no lump shall be formed.—*Medical Review of Reviews.*

CAMPHORIC ACID IN THE NIGHT SWEAT OF CONSUMPTIVES is recommended by Drs. Furbringer, H. A. Hare and others in 15 or 20 grain doses, to be taken one or two hours before the time the sweat usually comes on.

PELLOTIN is a new hypnotic recently brought to the notice of the medical profession by Dr. F. Jolly, of Berlin, Prussia. It is an alkaloid discovered in a species of Mexican cactus called anhalonium. The natives of Mexico are reported to swallow slices of this plant, to which they give the name of *pellote*, and Dr. Hefter, of Leipsig, has now succeeded in isolating its soporific alkaloid. Pellotin itself is not soluble in water, but its hydrochloride is extremely soluble. Its physiologic action was first tried on frogs and then on mammals, which very soon became unable to stand or perform spontaneous movements, and shortly after an increase of the reflexes was observed, followed by tetanic convulsions. This action of the drug on animals was identical with that which Dr. Hefter observed himself, for after taking five centigrammes (three-quarters of a grain) he became very drowsy and ultimately fell asleep. The drug was then given by Prof. Jolly to a number of patients in the neurologic wards of the Charité Hospital in Berlin. The first case was that of a man suffering from alcoholic neuritis, who, after an injection of four centigrammes, became very drowsy, and one hour after he fell into a sleep which lasted for four hours. Dr. Hefter had observed in himself a diminished pulse-rate, and the same symptom was perceptible in this patient. Professor Jolly says that six centigrammes (one grain) of pellotin are equal to one gramme (15½ grains) of trional, or two grammes (31 grains) of hydrate of chloral. The remedy deserves further trial —*The London Lancet.*

HYOSCIN HYDROBROMATE is a valuable drug in the treatment of the insane; doses of one-eighth to one-twentieth can be given with safety.

XEROFORM (bismuthum tribromphenylicum), the new anti-septic, contains 49 per cent. of oxide of bismuth and 50 per cent. of tribromophenol.

SUBCUTANEOUS INJECTIONS OF IODIN IN THE TREATMENT OF ALBUMINURIA.—Dr. E. Boisson (*Journal de Médecine de Paris*), remarks that some Italian and French physicians maintain that this treatment is beneficial. The following is Menella's formula :

℞ Iodin..... 3 grains.
Potassium iodide a sufficiency.
Distilled water, enough to make 20 cubic centimeters.

M. Sig. From 1 to 2 cubic centimeters to be injected in the course of a day.

Mousnier's formula is as follows :

℞ Iodin 1 drachm.
Tannin 15 grains.
Eucalyptol..... 600 grains.
Sterilized oil, enough to make 100 cubic centimeters.

M. This is twice the strength of Menella's solution, consequently the amount to be injected is from a half to one cubic centimeter.

—*New York Med. Jour.*

TANNALBIN (tannin albuminate), a new intestinal astringent, is well spoken of by Dr. R. von Engel, of Brüm, Austria, and Dr. O. Vierordt, of Heidelberg. Tannalbin may be administered pure, in its natural powder form, in the following dosage :

Adults 1 gramme (15½ grains).
Older children 0.5-1 gramme (8-15½ grains).
Infants..... 0.25-0.5 gramme (4-8 grains).

It must be given three to five times daily an hour apart. It can also be given in a mucilaginous vehicle, in syrup or honey.

Miscellaneous.

THE TREATMENT OF HEART DISEASE was considered succinctly by Dr. Graham Steel, F. R. C. P., in his recent presidential address before the Manchester Medical Society, as found in the *Medical Chronicle*. He said :

“In therapeutics I often think it is well, in the case of any new remedy or method of treatment, to bear in mind Talleyrand's diplomatic advice, “Above all, *no zeal*,” and if, during

the twenty-five years we are considering, we have used chiefly the same remedies, I do think we have learned to use them more skilfully. What avails the most excellent of rifles in the hands of an inexperienced marksman? That digitalis holds the same prominent place in the treatment of heart disease it did twenty-five years ago is not a fact we need be ashamed of. In my thinking quite otherwise, and I doubt if we shall ever have better means to an end. I am glad to see the heresy that the drug is to be withheld in cases of aortic incompetence passing away. But what of the mass of avoidable human suffering it has occasioned in the past? Even theoretically, I think aortic incompetence is just the lesion in the treatment of the effects of which digitalis should be most useful. The most successful results I have ever obtained from the use of digitalis, I think, have been in cases of this lesion.

“There are two remedies, introduced during the time we are considering, to which I must specially refer—one is strophanthus, introduced by Professor Fraser, of Edinburgh, whose recent work in another direction has afforded so much expectation of the saving of many of our fellow-subjects in India from the jaws of death in only too literal a sense. The other is the nitrate salt, for the introduction and advocacy of which we are legally indebted to our own Professor Leach. Strophanthus I have, on several occasions, found to act like a charm in cases to which digitalis seemed always injurious rather than beneficial, and two cases are specially before my mind’s eye who simply, it is no exaggeration to say, survived for many months upon it. Strophanthus, however, has hardly proved the formidable rival to digitalis it promised to be when first introduced. In the heart failure of Bright’s disease theoretically one would think strophanthus rather than digitalis indicated, and it suits some cases of the kind exceedingly well, but others derive greater benefit from digitalis, I think those in which the arterial tension has failed considerably. Diuretin I have found occasionally a useful drug, even after digitalis and strophanthus have failed, provided the kidneys are sound, for on these organs I am inclined to think it chiefly acts. Caffein, again, sometimes gives quite brilliant results under like circumstances, but on the whole I think it is a less valuable drug than either digitalis or strophanthus.

“With regard to convallaria, apocynum, and other remedies of the same class, it is only fair to confess that I have reserved them for the worst cases which had already resisted digitalis and strophanthus, and in which the heart muscle was profoundly degenerated.

“The nitrites are no doubt a most valuable addition to our drug armamentarium in our conflict with heart disease, but alcohol was the old-fashioned vaso-dilator, and it proved a most serviceable one, especially given freely at night, when cardiac dyspnea is so apt to be most distressing. The nitrites no doubt relieve the heart by lightening its burden. Sharp purges are most useful for lowering arterial tension, and so relieving the heart, but I do not think it is desirable to give them so frequently, as is often done in the hope of removing dropsies, for they must exert a weakening influence on the heart itself by the irritation they produce in the intestines.

“Lastly, morphia, guarded by atropia, is generally our last resort when dyspnea amounts to agony, and heart stimulants and vaso-dilators alike fail to bring relief. Judiciously used, it is a most precious remedy in promoting euthanasia, while actually prolonging life and rendering it tolerable. But I have seen most unexpected recoveries under its use when the case seemed utterly hopeless. When the bronchi get blocked with secretion, however, morphia must be given with extraordinary caution, or altogether withheld. I think blocking of the bronchi with secretion is a stronger contraindication of the use of morphia than Bright's disease. I have repeatedly been able to afford the sufferer from advanced Bright's disease with cardiac failure the greatest relief by morphia and atropia, cautiously administered subcutaneously, beginning, of course, with infinitesimal doses, and feeling one's way slowly onward to larger doses, so as to ascertain the dose that will bring relief without danger. No amount of albumin, in an advanced case of heart disease, necessarily indicates actual disease of the kidney. Over and over again I have found the urine, under the circumstances, loaded with albumin, and presenting casts in the deposit (though usually only a few), and been assured by the pathologist, after the autopsy, that the kidneys were only “venously congested.” But if there is much cyanosis and much secretion in the bronchi, morphia, even guarded by atropia, is decidedly dangerous.”

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 Handbook of Medical Climatology, Embodying its Principles and Therapeutic Application, with Scientific Data of the Chief Health Resorts of the World. By S. EDWIN SOLLY, M. D., M. R. C. S., American Climatological Association. Four hundred and seventy pages, with engravings and colored plates. Lea Brothers & Co., Philadelphia and New York, 1897

Dr. Solly has evidently spent much time and labor in the production of this work. There can be no question of the usefulness of the book. Physicians in this country are almost totally ignorant of climatology, and are not only expected, but pretend to act advisory to their patients in the selection of health resorts and of summer residences. Our medical schools do not teach climatology and the explanation is at hand. Annually there is a great hegira to the European watering places, where much is made, and properly, of the natural advantages of the resorts. No educated Continental practitioner of medicine is unfamiliar with most of the various winter and summer resorts of France, Germany, Austria, or of the Mediterranean coast. The book itself is carefully arranged with the object of educating the physician. After defining the essentials of climatology, the relation of diseases to geographic situations is considered, climates are classified, and instances are quoted of different climates as suitable to particular diseases. Tables are freely used giving data which are expanded in the text. Maps and diagrams are used to more fully illustrate the purposes of the work.

The lack of reliable information regarding numerous climates in the United States is to be deplored. A notable instance is in that of New Orleans. As much frequented as it is in winter, and with the advantages of a winter climate it possesses, there is an

absolute absence of reference to New Orleans (except the quotation of its low rate of humidity, comparatively) either in the text or in the tables, many as there are.

This work of Dr. Solly should be widely read, and the publishers are to be complimented upon the graphic way in which the subject is produced and presented.

DYER

Syringomyelia. Alvarenga Prize Essay, 1895, by GUY HINSDALE, A. M., M. D. The International Medical Magazine Company, Philadelphia, 1897.

The literature on syringomyelia has grown quite extensive in recent years. Dr. Hinsdale has written exhaustively of the subject in the essay under review, and has rendered a valuable contribution to the literature on the subject. The anatomy of the disease is carefully analyzed and well illustrated. The etiology is only too briefly considered, and the author does not acknowledge leprosy as a causal factor, even a contributing factor, notwithstanding the work of Pacha and others. Some space is given to the discussion of those cases of leprosy found associated with syringomyelia, but care is taken to remove any acknowledgment of any closer relation. This in no way detracts from the merit of the contribution, nor from the value of the work done; it only shows the more distinctly the author's view of the particular phase. A complete bibliography is included in the publication.

DYER.

Atlas and Essentials of Gynecology. By OSCAR SCHAEFFER, M. D., of Heidelberg. With 173 colored plate illustrations and 54 wood cuts. William Wood & Co., New York, 1897.

This little book, like its predecessor, "Atlas of Obstetrics," is a fine work of art. The illustrations are beautiful and correct. While the text might not be in keeping with the principles taught on this side of the Atlantic, it is reliable. Such works, we believe, should be encouraged. There is certainly a great deal of information to be derived from the illustrations by him who studies them carefully.

MICHINARD.

Lippincott's Medical Dictionary. Prepared on the Basis of Thomas' Complete Medical Dictionary. By RYLAND W. GREENE, A. B., with the Editorial Collaboration of John Ashhurst, Jr., M. D., George A. Piersol, M. D., and Jos. P. Remington, Ph. M. J. B. Lippincott Co., Philadelphia and London, 1897.

Another addition has been made to the already numerous list of medical dictionaries. The publishers have presented a creditable volume of 1154 pages, well printed in strong type, and with a most careful editing. The definitions are all concise, but comprehensive. The punctuation is plainly marked, and both the Latin and English pronunciation is given where there is customarily a tendency to the English usage. This is a wise judgment on the part of the publishers, as the tendency is more and more to the Anglicizing of imported words, or technical terms of Latin or other derivation. Altogether the dictionary of the Lippincott Co. is creditable to the publishers and editors.

DYER.

A Compend of Gynecology. By WM. H. WELLS, M. D. With 150 Illustrations. P. Blakiston, Son & Co., Philadelphia, 1896. Price, 80 cents.

This short compend contains some useful information, and some that is worse than useless. Among the latter can be mentioned the recommendation of the uterine sound for the replacement of a retroverted uterus. The illustration of ventrofixation suggests too much fixation of the anterior surface of the uterus. Such an operation would cause so much anchorage of the uterus that a subsequent pregnancy would almost surely be interrupted by abortion. Any way this illustration is not in keeping with the text, and shows carelessness in the make-up of the book. Excepting several such inconsistencies, the book is fairly good.

MICHINARD.

A System of Practical Therapeutics. Edited by HOBART A. HARE, M. D. Lee Bros. & Co., Philadelphia and New York, 1897.

This condensation of the larger work in three volumes contains much that is new and brings the work abreast of modern therapeutic information. The contributors are twenty-eight, all prominent in their respective departments.

In this short review, we make mention of a few of the many

good articles in this excellent work. Dr. Anders gives a good exposition of the therapy of typhoid fever. Dr. Park's article on New Facts and Methods in the treatment of diphtheria is replete with valuable information. The use of diphtheria antitoxin in preventing, by immunization, the development of diphtheria is well set forth. In 17,576 cases immunized, no serious after effects were noticed which could be ascribed to the antitoxin injected. The ill effects of the antitoxin are explained, and rules for dosage given. The statistics in some of the large cities are interesting as showing the value of the agent in reducing the mortality. The experience of Drs. White and Somerset are cited as showing only a slight advantage gained by the use of local applications in conjunction with the antitoxin.

Diseases of the thyroid gland are well handled by Dr. Meltzer. Dr. Ashton writes on diseases of the stomach in his usual interesting style. The article on appendicitis is from the pen of Dr. Geo. R. Fowler. It is pleasing to note a more conservative view from a medical standpoint than was advocated in Park's Surgery.

The work does not pretend to be exhaustive; it reflects the views of the profession in America, and as such deserves success.

STORCK.

The Liver of Dyspeptics, by DR. EMILE BOIX, of Paris, being the authorized translation of the latest French Edition, by Paul Richard Brown, M. D., Major and Surgeon, U. S. Army. G. P. Putnam's Sons, New York and London.

This unique monograph should meet with a hearty welcome among medical men of this country, where dyspepsia, with allied liver troubles, is so wide-spread as to almost merit the title of being our national malady. This author very properly introduces his subject by making an exhaustive review of the various poisons of the alimentary canal and the conditions which favor their production, with special reference to the liver. Hepatic congestion and cirrhosis are next considered with the etiology and pathogeny of those conditions. A number of instructive "Personal Experiments" are next described, after which Dr. Boix recapitulates, and finally sums up his conclusions in a page and a half of remarkably pithy sentences.

The colored lithographic illustrations are real works of art, giving the details and staining of microscopic sections represented, with surprising fidelity.

PATTON.

The International Annual and Practitioner's Index. A work of Reference for Medical Practitioners. Fifteenth Year. E. B. Treat, New York and Chicago.

This standard work appears this year as an elegant volume of nearly 800 pages, with copious illustrations, a number of which are excellent full-page colored plates, the remainder being photographic reproductions and wood cuts of a high order of merit.

Part I, the "Dictionary of New Remedies," will be particularly useful to the general practitioner. The author's review of recent progress in glandular and serum therapeutics is most satisfactory and instructive.

Part II is devoted to "New Methods of Treatment," chiefly medical, but with frequent reference to surgery.

Part III, dealing with "Sanitary Science," though occupying only a relatively small number of pages, is replete with practical information on this important subject. PATTON.

A Manual of the Practice of Medicine. Prepared Especially for Students. By A. A. STEVENS, A. M., M. D. Fourth Edition. Revised and Enlarged. W. B. Saunders, Philadelphia.

This admirable and remarkably comprehensive work has been carefully revised and brought well up to date. This being the fourth edition of a book already so widely known and appreciated, it is hardly necessary to refer in this connection to the style of the author, or to the general make-up of the volume. The addition of an appendix, dealing with the examination of the blood and gastric contents, greatly enhances the value of Dr. Stevens' useful manual. PATTON.

Retinoscopy. By JAMES THORINGTON, M. D. P. Blakiston, Son & Co., Philadelphia, 1897.

We have nothing but a good word for this little book. It seems to fulfil well the purpose intended. It gives a brief, clear description of the means and manner of retinoscopy, together with the principles or natural laws upon which it is founded. The author has done well in selecting the method he

thinks best and simplest, and has confined himself to it, so that the student will have no difficulty or confusion in following the manual step by step and learning to put in practice for himself what is described in the pages. This once accomplished he can readily, if he becomes convinced of its usefulness, acquire the variations and refinements upon this mode of examination.

H. D. B.

Retrospect of Practical Medicine and Surgery. Edited by JAMES BRAITHWAITE, M. D., assisted by E. F. Trevelyan, M. D. G. P. Putnam's Sons, New York, 1897.

The one hundred and fourth volume of Braithwaite's *Retrospect*, like its predecessors, is a summary of some of the leading original work in 1896. The collaboration is wisely distributed among men of note, and the material is selected from the more important periodic literature. The work is a useful review and the neat binding in an octavo volume makes it handy for reference.

DYER.

High Altitudes for Consumptives. By A. E. TUSSEY, M. D. P. Blakiston & Co., Philadelphia, 1896.

This monograph is aimed at correcting the indiscriminate sending of unselected, and, therefore, unsuitable, cases of tuberculosis to high altitudes. The author makes a strong argument against removing patients from their homes. Habit and diet, together with occupation, should be changed first. Exercise and better hygiene at home are often overlooked, when these are vital factors. He considers the adaptability of patients to high altitudes from every standpoint, age, physique, vital powers, chest capacity, etc.

While too verbose to be of service for reference, the work is timely.

DYER.

A Manual on Elementary Bandaging and Surgical Dressings. By WALTER PYE, F. R. C. S., Late Surgeon to St. Mary's Hospital. W. B. Saunders, Philadelphia, 1897.

This work is all that its author claims for it. Although there is nothing especially new in the book, the author has culled from

the different subjects the most necessary and practical suggestions. It contains information which must prove valuable to all beginners, or to such as need a hint in an emergency. As a pocket manual it should commend itself to the profession.

MARTIN.

PUBLICATIONS RECEIVED.

Transactions of the Southern Surgical and Gynecological Association, 1896.

Report on the Abuse of the Clinic, Brooklyn Eye and Ear Hospital.

Transactions of the American Pediatric Society, 1896.

Eye Strain in Health and Disease, by A. L. Ranney, M. D. The F. A. Davis Co., publishers, 1897.

The Menopause, by A. F. Currie, M. D. D. Appleton & Co., publishers, 1897.

Manhattan Ear and Eye Hospital Reports.

Proceedings Louisiana State Pharmaceutical Association, 1897.

Practical Therapeutics, edited by Frank P. Foster, M. D. D. Appleton & Co., publishers, 1897.

REPRINTS.

L'Ouverture large de la Caisse, by Dr. E. J. Moure.

Om Endokardit, by Dr. Francis Hearbitz.

Tumors of the Orbit, by Wm. Cheatham, M. D.

Sérothérapie de la Lèpre, by Dr. Juan de Carrasquilla.

Original Methods for Detecting and Measuring Abduction and Adduction of the Thigh, by Phil. Hoffman, M. D.

Lesions of the Retinal Vessels, etc., Associated with Gout, by Chas. S. Bull, M. D.

Preputial Reflex Epileptiform Convulsions, by Alex. L. Hodgdon, M. D.

The Hygienic, Educational, and Symptomatic Treatment of Pulmonary Tuberculosis; Should We Treat Tuberculosis as a Contagious or as a Communicable Disease? by S. A. Knoff, M. D.

Zur Morphologie der Malariaparasiten, by Dr. Hans Ziemann.
Gonorrhœal Endocarditis; Arsenical Neuritis, by Alf. Stengel, M. D.

The Standard of Medical Education, by J. M. Bodine, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR JUNE, 1897.

CAUSE.	White	Colored...	Total
Fever, Malarial (unclassified).....	7	5	12
“ Intermittent	1	1	1
“ Remittent	3	3	6
“ Congestive.....	2	3	5
“ Typho	4	6	10
“ Typhoid or Enteric.....	10	6	16
“ Puerperal	1	1	1
Cancer	13	4	17
Influenza.....			
Measles			
Diphtheria	2		2
Whooping Cough			
Apoplexy	15	3	18
Congestion of Brain.....	26	9	35
Meningitis	16	4	20
Pneumonia.....	6	4	10
Bronchitis	6	8	14
Consumption.....	25	46	71
Bright's Disease (Nephritis)	16	11	27
Uremia	5	3	8
Diarrhea (Enteritis).....	34	24	58
Gastro-Enteritis	6	4	10
Dysentery.....	4	4	8
Hepatitis	4	3	7
Hepatic Cirrhosis	6		6
Peritonitis.....	3	1	4
Debility, General		2	2
“ Senile	4	5	9
“ Infantile	2	3	5
Heart, Diseases of	23	14	37
Tetanus, Idiopathic			
“ Traumatic		5	5
Trismus Nascentium.....	3	4	7
Injuries	15	6	21
Suicide	3		3
All Other Causes	161	74	235
TOTAL	424	265	689

Still-born Children—White, 22; colored, 25; total, 47.

Population of City—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 24.04; colored, 39.75; total, 30.06.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.02
 Mean temperature..... 82.00
 Total precipitation..... 4.82 inches
 Prevailing direction of wind, southeast.

September, 1897.

*Paulum sepultæ distat inertie
Celata virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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ISADORE DYER, M. D.

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SEPTEMBER, 1897.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

(Established in 1844.)

EDITORS:

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

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FROM all that has appeared in the medical press of late, our private correspondence with physicians, the interviews of our representatives with medical men in every State and Territory, there seems to be nothing so valuable as

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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. L.

SEPTEMBER, 1897.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

THE PATHOLOGY OF MALARIAL HEMATINURIA.

BY BROOKS COLOMB, M. D., UNION, LA.

The pathology of malarial hematinuria is strikingly deficient for so fatal a malady. Until it is better understood the treatment must remain in its present uncertain state. Our text-books are all written by practitioners from the Northern States, where the fatal forms of malaria are rare and this variety almost unknown. One must have recourse, therefore, to the periodic literature of the Southern States, or to the transactions of their societies, for information of any value on this subject. The publication of "Systems of Medicine" tends, in some measure, to remedy such deficiencies, as contributions upon special subjects are thus obtained from recognized authorities. Bemiss records two cases and one incomplete post-mortem, with no blood examination and an imperfect analysis of urine.¹ Joseph Jones has collected a mass of data and of bibliography, to which he has added his own extensive observations, but his conclusions and those of Bemiss, as to the pathology of malarial hematinuria, are not in accord with the latest conception of malarial diseases.²

Modern discoveries have placed malaria among the parasitic blood diseases, and made necessary a change in the pathology of its various types. The lack of pathologic data has arisen from two main causes :

1. Nearly all cases occur in the rural districts, where post-mortems are unknown.

2. The practitioners in these localities have not the facilities, or are lacking in the ability to make chemic and microscopic investigations, so absolutely necessary for any scientific conclusions.

The malarial poison which has now taken a definite form as a "Hematozoon" completes its life cycle at the expense of the red blood cells, which it destroys. Its presence in the corpuscle and gradual development can be seen under the microscope and it can be followed in fresh specimens, from the invasion of the corpuscle to the time of sporulation. The young spores escape into the circulation, the corpuscular envelope and free pigment are all that remains of the cell, the protoplasm being probably consumed in the development of the sporules. It is only necessary to allude to the theory advanced against the parasitic nature of malaria, that its effects upon the system are exerted mainly upon the spleen, whose function as a bloodmaking organ becomes disordered and only imperfect and unstable corpuscles are generated, which tend to a rapid disintegration.³

The mass of testimony collected by Thayer and Hewetson, as well as their own investigations, are conclusive as to the nature of the malarial poison and its effect upon the human system.⁴ Whether each type of fever has a special germ type may be considered still unsettled. Laveran's original opinion, that the several varieties of fever depend upon a polymorphous organism, has most weight in its favor. It is more reasonable to assume that the variations in type depend upon the individual than to try and account for them by providing separate forms of hematozoa.

The interchangeableness of the various types of malarial fevers would be contrary to such an opinion. All diseases show unlimited variations from a typical standard, arising from a number of causes in no way related to a change of form in the essential cause. It has been the experience of others, as well as my own, to find this peculiar manifestation of malaria occurring in members of the same family, or recurring in the same individual.

I have elsewhere recorded the histories of seven cases in which this tendency is shown, and case VI was under my care in 1895 for the same trouble.⁵

In a letter now before me, the writer says, "I have had malarial hematuria three times, my brother had it three times, my cousins C. and L. had it, the former twice, the latter once, dying in forty-eight hours." In chronic malaria without paroxysms, the red blood cells are gradually destroyed, their pigment drifts into the internal organs, and much escapes into the urine as urohematin, a direct reduction product of hemoglobin. In the paroxysms of intermittent and remittent fever, the destruction of red blood cells is more active, the anemia increases quickly, and the internal organs are correspondingly pigmented, while the urobilin and uroerythrin show the great destruction of red cells.⁶ In the type of fever we are considering there is such rapid and extensive dissolution of red cells that the entire system is overwhelmed with the wreckage. The experienced physician is at once brought to the conclusion that he has to deal with a case of blood poisoning, bearing a close resemblance to uremia. Uncontrollable vomiting, purging, delirium, jaundice, profuse sweats and urinary suppression indicate the damage done and the intense toxemia.⁷

Heretofore this destruction of the red cells was supposed to take place in the liver and spleen, as the debris resulting from their disintegration is found principally in these organs. The definite existence of the *plasmodium malarie* eliminates all theories as to the place of dissolution, by demonstrating the process of hemolysis in the circulating fluid wherever it may be found. There is no theory that can account for the condition found, after the initial chill in a case of hematuria, except the sudden extensive destruction of the red cells due to the sporulation of innumerable parasites and the presence of their wreckage in the circulating medium. The intense toxemia is manifest at once, and there is a more or less rapid amelioration, depending upon the rate of elimination. The extraordinary vulnerability of the red cell may be accounted for by the long continued action of the malarial plasmodium in reducing their powers of resistance, and largely to individual susceptibility. The characteristic urine which has given a name to this disease bears a most important relation to its pathology, and methods of treatment are adopted according as medical men assume that a true hemorrhage exists or not.⁸

Tyson states "that it is not necessary that red blood cor-

puscles should be present in the urine. They may be represented by their coloring matters alone; and this, he says, is especially so in the malignant type of the disease."⁹

Jones distinctly states that we have a true hemorrhage from the kidneys, preceded by congestion and attended with rupture of the malphigian capillaries.¹⁰

Vogel states that, in health, hemoglobin never passes through the kidneys with the urine. But when there are pathologic processes going on in the blood, the result of which is a wholesale destruction of red blood cells, then the quantity of pure hemoglobin in the blood becomes so great that it can not all be subjected to normal changes and it seems that a part may be secreted unchanged by the ordinary channels of the urine, just as other substances, such as sugar, bile and perhaps albumin, when contained in the blood in excess, may pass over into the urine.¹¹

The cause of the intense jaundice that supervenes in all cases of malarial hematuria is to be sought for in the free blood pigment. The close relation of the bile pigments to that of the blood, the absence of obstruction in the bile ducts, or any evidence of functional inactivity on the part of the liver, in fact, of the usual causes of jaundice, and the rapidity of its onset, are sufficient evidence as to its source. Osler terms this "toxic jaundice," in which the liver function can not keep pace with the blood destruction, more blood pigment being set free than can be disposed of by the liver, spleen or kidneys and the bilirubin (transformed hemoglobin) is deposited in the tissues.¹² The kidneys are the main channels by which the toxic elements are to find their way out of the body. As long as they are functionally active, the case may progress to a favorable termination, unless there has been so great a destruction of vital elements in the blood as to render that fluid unfit to sustain life. The increased functional activity of the kidneys, seen in some cases, is explained by the great determination of blood to these organs. This may be so intense at the onset as to overwhelm the kidney function, or this may subsequently arise from injudicious therapeutics. The question as to whether there are red blood corpuscles in the urine or not is of small moment. The principal ingredient of the urine which gives its physical characteristic, is hematin, either in solution or as granular pig-

ment. Jones accounts for the free pigment in the urine by its solvent action, and that of the bile upon the corpuscles in the bladder and upon the blood clots in the tubuli uriniferi.¹³ I have examined urine voided during the initial chill, the reaction being acid and the filtrate showed an abundance of hematin in solution, as evidenced by the production of Teichman's crystals. In mild cases there may be no sediment, but if the albumin be precipitated by boiling it will carry down the pigment, and the ordinary test will show hematin to be present.

We have a similar condition arising in the course of scurvy, typhus fever, and after the inhalation of hydrogen arsenide, carbonic acid and similar cases, and after the transfusion of blood.¹⁴

This granular pigment results from the coloring matter of the red cells, which are destroyed by the *plasmodium malarie* in the circulating blood, and exists in so great an amount as to render its reduction into urohematin an impossibility. An analogous condition exists when uric acid is eliminated in this way. Under normal conditions urea would be the reduction product of nitrogenous waste. I have seen no case of chronic nephritis resulting in these cases, nor have I failed to see the urine return to a normal condition within a few days after the hematuria had subsided. It is hardly likely that structural lesions of the kidneys could be repaired in so short a time.

I have dwelt at some length upon the kidney lesion of malarial hematuria because the issue in many cases will depend largely upon a proper appreciation of the condition present, and suppression of urine is usually the signal of approaching dissolution.

The complication in this case overshadows the underlying cause and we must recognize this fact if we would save life. Death supervenes more quickly than in ordinary cases of urinary suppression on account of toxemia already present.

At the post-mortem the kidneys are the only organs in the body that can account for the death of the individual. I think it would be a fair estimate to say that death is caused by urinary suppression in malarial hematuria in 90 per cent. of all cases.

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 THE DIAGNOSIS OF APPENDICITIS.*

BY F. LARUE, M. D., VISITING SURGEON, CHARITY HOSPITAL, NEW ORLEANS.

When we are summoned to the bedside of a patient who has been suddenly seized with pain in the right iliac fossa, referred specially to McBurney's point, presenting besides some tumefaction, *loco dolente*, with more or less fever, we can confidently hazard the diagnosis of appendicitis. This triad of symptoms represent the typical form of this disease.

We must, however, not only bear in mind the common variety of this frequent ailment, but ever be on the alert to recognize the anomalous types, which, when not diagnosticated in the incipiency, terminate so seriously. There are then both typical and atypical forms of appendicitis, either of which may be acute, subacute or chronic.

The acute fulminating or hypertoxic form which strikes one in the best of health, ends fatally in a day or two, if not given immediate surgical attention. I have witnessed one such case in which the appendix was gangrenous and sloughing, and which was, fortunately, excised in time to save life.

The fever is sometimes very high, with a rapid pulse and general collapse, although the gangrenous case just mentioned had only a temperature of 101½ deg., pulse 110—symptoms altogether disproportionate to the existing pathologic changes.

There is a hypertoxic form, described last year by Professor Dieulafoy, in which the appendix vermiformis is converted into a closed cavity, the appendix-lumen being obliterated at some

* Read before the Orleans Parish Medical Society.

given point by a catarrhal state of the appendix. Thus imprisoned, the germs, innocuous otherwise, become very virulent, and set up a most violent infectious condition. The appendix in these cases has been found at autopsies, or during operations to form a closed cavity containing most virulent germs, especially streptococci and the *bacillus coli communis*.

When the latter (*bacillus coli communis*) alone is the infecting agent, peritoneal absorption sometimes takes place, giving rise to a peritoneal septicemia without perforation or suppuration and with little or no fever. The pulse rapidly increasing and thready, with a collapsed condition of the patient, should be our guide in the diagnosis and treatment. The subacute variety generally follows an acute attack, which gradually lessens in intensity, giving rise to a slow form of sepsis. I admitted last October, to Ward 9 of Charity Hospital, a patient who had walked from the L. & N. depot to the outdoor clinic. Examination revealed a well-defined tumor in right iliac fossa, which, incised the day following admission, was found to contain a quantity of pus. This man was stricken with an acute attack four weeks previously, and ever since then had a slight septic fever. In the course of the operation the appendix was found in a walled-off abscess cavity. Ligation with inversion of stump was resorted to, the case terminating favorably.

The chronic cases are those presenting slight—in fact, at times insignificant—recurrent appendicular colics, with or without fever, causing no interruption in one's every day life. This treacherous condition should warn us of impending peril. These cases not infrequently, even in children, present some slight gastro-intestinal symptoms such as constipation, diarrhea, dyspepsia, nausea, simple indigestion, etc. We are all aware of the important role some eminent surgeons like Reclus wish to attribute to entero-colitis as an etiologic factor in appendicitis.

The atypical variety differs from the former by the abnormal location of the pain, such as in the examples of ectopic appendicitis when the organ has been found to be intra-pelvic, in the lumbar region, behind the colon and under the liver, and to the left of the median line, etc.

Besides these anatomic divisions there exists a pseudo-neuralgic or hysteric appendicitis in which, although no tumefaction

exists, the temperature nevertheless rises sometimes exceedingly high, with quick pulse and corresponding general depression. These troublesome cases, fortunately very rare, are met with not only in women, but also in men, and even in children. Rendu and Talamon have called attention to these kind of cases which can be differentiated only after a minute analysis of the symptoms, the presence of hysteric stigmata, the frequent pain localized not over McBurney's point, but in the region of the lower costal zone.

I have so far only mentioned the actual condition of the patient, as we find him when summoned.

There are other guides to direct us in our diagnosis. Recurrence of the attacks should weigh heavily in favor of appendicitis, especially in the perplexing cases of the intra-pelvic variety, described by Poncet, of Lyons. This form is equally met with in both sexes; in man it is easily ascertained by combined abdominal palpation and rectal exploration. In women it has been taken for suppurating or non-suppurating inflammation of the right uterine appendages.

Budin and Doleris, of Paris, claim that in this variety of appendicitis the appendix is relatively high up in the pelvis, and can not be felt very easily *per vaginam*. The ovary and the tube of the corresponding side can be felt adjoining the womb. The uterine annexes, when inflamed, and therefore in cases of right pyo-salpingitis, generally dip down into the vaginal *cul de sac*.

The antecedent history of the patient will help us in our differentiation, for salpingo-ovaritis is as a rule preceded by a puerperal or gonococcal inflammation.

In cases of appendiceal inflammation, oftentimes pre-existing intestinal trouble will be found. The following errors in diagnosis, cited by Lucas-Championniere, were made by reputable physicians; laparotomy was twice performed for appendicitis, this organ being found intact, the ovary and the tube being diseased. In other cases operated on for supposed appendicitis there was found on one occasion a right ectopic kidney; once an abdominal tuberculosis; two cases of muscular rupture of the abdominal wall; one case even of purulent pleurisy and lastly one case of a small strangulated hernia of the *linea alba*.

One can meet with an inflamed appendix in the course of an ovariectomy, hysterectomy, or even in cases of ectopic gestation,

but in these cases, however, the appendicitis is generally secondary, due to an extension of the inflammatory process.

I will terminate my subject by citing other etiologic factors; such as tuberculosis, traumatism, foreign bodies coming from within or without the body, viz.: grape seeds, fecal bolus, appendiceal lithiasis, the latter developed *in situ* and well described by Professor Dieulafoy. Rheumatism has also been invoked as a cause of appendicitis.

THE EARLY CHARITY HOSPITAL.

[CONCLUDED FROM THE JULY AND AUGUST NUMBERS.]

BY J. J. CASTELLANOS, M. D., NEW ORLEANS, LA.

The condition of the Provisional Hospital, if thus could be called the pitiable wreck of once a most prosperous institution, had grown so critical; the cold indifference of its patroness so revoltingly persistent, that more energetic efforts were exerted to bring about the much coveted reform. The Legislature was addressed to that effect and the situation clearly exposed. While the patroness on one hand pleaded that the present situation was the result of a calamity of an extraordinary character, and being unforeseen had not been provided for in her late husband's will; hence she could not be held answerable for the exigencies that had newly arisen. The corporation, on the other hand, contended that unless she were to rebuild the hospital she could no longer retain any claims upon it. In other words, the existence of the foundation was inseparably connected with that of the hospital; and lastly, but not less emphatically, they remonstrated against the heavy charges which the already overburdened municipal government was made to assume while lending pecuniary aid to the hospital.

In the course of researches then minutely pursued in the original official documents relating to the hospital, a startling disclosure of an almost scandalous character was unexpectedly brought to light. The original inventory of the real estate of the hospital, when compared with a second, drawn at a later date, revealed the regrettable fact that "during the interval of five years which had elapsed between Don Almonester's appointment and his death, the real estate property of the hospital had

already been made to undergo material alterations, not that the number of houses had been in any manner curtailed, but exchanges and substitutions had in some cases been obviously made for several lots and houses that did not appear in the original inventory." In short, the original list had been tampered with. It would prove too tedious to follow the carefully drawn details of the mayor's exhaustive exposition of the case. It, however, goes to prove how zealously our first mayors watched over the welfare of our public institutions. Another discovery, still more unexpected, was in store, so much the more deplorable, as it implicated the very founder of the hospital. It is needless to observe that I have endeavored, in this instance, to render the mayor's own words, by means of a most scrupulously accurate translation, owing to the gravity of the case: "The death of Don Andres de Almonester gave rise to investigations of the hospital's financial situation. Mr. de Penulfor, then bishop of Louisiana, whose name will ever be endeared to the poor, as well as to the friends of humanity at large, gave his special care to the investigation of these accounts. He therein discovered that the estate of Don Andres de Almonester was indebted to the hospital to an amount of \$6344 and 3 reales—and requested the Governor to enforce its restitution." Mr. de Salcedo gave assurances to the bishop that he would attend to this claim, and thereupon transmitted the bishop's letter to Mme. de Almonester. In reply, this lady alleged that she had failed to discover among the papers of her late husband any document that could lend a support to the bishop's claim—that, furthermore, the Royal Cedula dispensed her husband from the obligation of effecting any settlement, and in deference to the Sovereign's desire, no further steps should be taken in this matter. Nevertheless, on July 9, 1802, Dr. Thomas Harret, to whom the administration of this diocese had been committed, having applied to Governor Saludo, again insisted upon the restitution to the Charity Hospital by the heirs of Almonester of their indebtedness of \$6344 and 3 reales. Matters thus stood until the cession of this province to the United States. The change of government did not, however, deter the members of the municipal corporation from looking into the merits of this contested claim. One of our most distinguished fellow-citizens, the late Mr. James Garrick, applied for a decision, to the Marquis of Casacalvo,

then commissioner of his Catholic Majesty, and entrusted with the negotiation of affairs pending between the Spanish Government and this country. Through an official communication, dated February 6, 1805, and addressed to Mr. Pitot, then mayor of this city, the commissioner of the Spanish Government declared that "Whereas the heirs of the late Don Andres de Almonester had failed to produce documentary proofs whereby they might refute the wise and just conclusions of His Grace, the Bishop, he could not decide otherwise than in favor of the Charity Hospital, in this case of restitution by the Almonester estate, of \$6344 and 3 reales, despite the reasons alleged by his widow, and already refuted by the above prelate. Viewing this administration as a whole, and critically appreciating its acts, we can not but deplore the present condition of all that relates to it. The hospital's real estate property appears to have been tampered with. There are no longer any slaves attached to its service. Their number had already been found considerably lessened at the time of the patron's death. The property of this institution seems to have been long ere this rented at exceedingly low prices. With the exception of two buildings that have been erected by the bishop, after Don Almonester's death, all the remaining houses are in a decaying condition, although the amount due by the patron's estate would have more than amply sufficed to cover the cost of their repair and renovation.

"It is impossible to remain any longer silent upon the fatal results of such mismanagement without incurring the charge of countenancing the reprehensible conduct of the lady to whom this administration had been confided, and what is still worse, to connive at the dilapidations that have very likely been perpetuated during her patronage rule, which we would certainly do if we failed to call attention of our magistrates to the errors of her past and present administration of the hospital's profit and revenue. * * * We should, in truth, venerate the memory of him who signalized his life by the legacy of the noblest monument that can entitle him to the blessings of a grateful posterity; yet, on the other hand, we can not longer tolerate any attempt by his widow to divert his generous intentions from the course he originally contemplated. His liberality to the sick indigents justifies our conviction that while lavishing so large a share of his resources on the hospital, he aimed at doing the

most possible good to suffering humanity. The only reflection which we regretfully state might cast some disparagement upon his memory, is that of having, through deference and condescension, to which his family could not rightfully pretend, sacrificed the rights of the poor. * * * The lawful validity of these condescensions can, however, no longer be at present sustained by his family. * * * The facts I have advanced and the motives I have hereabove made good should convince us how necessary it is to avert the impending ruin of this institution by resorting to a forced liquidation of its total indebtedness. Not only does a sense of humanity urge it upon us as a solemn duty, but also, I dare say, any delay on our part in the investigation of this question would imply a betrayal of public confidence. I would then propose to the city council to seriously consider whether it would not be wise to appropriate from \$4000 to \$5000 for the repairs of the three houses belonging to the hospital that are now crumbling down, and at the same time request the Attorney General to file a petition to the following effect:

“First and foremost—To proceed at once to an auction sale of all the rents accruing from the buildings and further property of the hospital.

“2d. To have a commission appointed by the court, to be composed of (omitted in the original text), for the purpose of proceeding, contradictorily to the patroness or her counsel, to a liquidation of the hospital’s accounts, set forth in the books or papers, which she should be compelled to produce in court, and which will besides afford the means of verifying the nature of the property which constitutes a part of the endowment of this hospital; a record of which is to be made and presented in court, to be homologated, in case there be no opposition.

JAMES MATHER, *Mayor.*”

While the mayor thus discussed at length the rights and privileges thus attached to the patronage, as they were then questionably exercised, and subjoining disclosures little calculated to edify the public, the council, on the other hand, lost no time in pursuing active measures, with the obvious design of overthrowing that objectionable authority. “Without prejudging whether the heiress of the late Don Almonester could still lawfully maintain her claims to the patronage of the hospital, not-

withstanding the latter's destruction by fire, and her failure to rebuild it; and, furthermore, considering that her title as patroness did not invest her with the authority of arbitrarily disposing of the revenues of an institution of that character, but that this title should rather impose upon her the obligation of watching with parental solicitude over its property, and of administering it most advantageously to the poor; and

“WHEREAS, both the city and Territory had already been subjected to considerable expense, having been made to assume the payment of the rent of the house in which the provisional hospital is now quartered, besides purchasing such articles as are indispensable to it, and whereas, it becomes the mayor's duty to seek the means of reforming the total administration of said property, as he can no longer remain silent upon its evil consequences; be it

“RESOLVED, That the mayor, in the name of suffering humanity, and acting in the capacity of a police magistrate, be requested to address a petition, through the city attorney, to his Honor, the judge of the parish of Orleans, to the effect of ordering the heretofore patroness of the Charity Hospital of this city, or her curatrix in her stead, to proceed at once to a public auction sale of the rental accruing from the buildings, stores, slaves and all other immovables of said hospital, and also to produce a statement of unexpired leases, in order to enable the council to cancel such as would not have been made on terms strictly advantageous to the hospital.”

The frequent appeals to the corporation for pecuniary aid, resulting from ill-management, fully justified the active prosecution of measures conducive to the overthrow of the patronage rule and the assumption of exclusive control of the corporation over the institution. A petition sent two years previous to the Legislature had failed to secure its arbitration upon questions at issue; but it had, however, granted an appropriation of \$2000 from the territorial funds, as a charitable measure for the relief of the poor. This appropriation was to be held subject to the corporation's orders, and intended to aid in the reconstruction of a new hospital. Since an early date, in fact immediately after the fire, this project had engrossed the council's attention. Many had been the schemes, by turns, entertained and laid aside, which, from their multiplicity and their desultory charac-

ter, betrayed little or no fixedness of purpose. No definite results had as yet been reached. Meanwhile, patients formerly housed in the Jourdan's plantation, and thence transferred to the La Vergne residence, were almost reduced to starvation, so much so, indeed, that on one occasion the hospital's employees, poor though they were, had been compelled to contribute from their own scanty means for the weekly sustenance of the neglected patients. They were made to sleep upon the damp, bare ground, the wooden flooring having decayed and no longer offering protection. The nursing of the sick was so indifferently ministered that, using Mather's own expressions in one of his messages, "No one, howsoever wretched and poor, will now consent to be committed to that hospital." Let it also be borne in mind that during these years of hardship and destitution, to the unfortunate inmates of the hospital, epidemics of the yellow fever swept over the city, carrying havoc and panic in their dismal path. Never in the annals of the city's history had the demands for a well organized hospital grown more urgent. Even the hospital's medical administration betrayed strained relations with the municipal authorities. Dr. Blanquet, very likely Dr. Giovellina's successor as house physician, had been censured and made to submit to the requirements then and long before prescribed for the practice of medicine, viz.: an examination by a medical commission appointed for that purpose by the mayor. Glancing over the council's proceedings we read his letter, bitterly resenting the enforcement of the law in his case. In a communication to the council he alludes in emphatic terms to the "indecent" treatment he had met with at the hands of a visiting committee from the council; very probably he had been made to undergo some of the odium which the mismanagement of the patroness had drawn upon that institution as well as all those who were officially connected with it. We, however, derive some pleasure in ascertaining that its director, Dr. Sanchez, the grandsire of one of our most esteemed creole families, had given much satisfaction, and justified the mayor's special recommendation that some additional remuneration be allowed him, as a grateful acknowledgment of his efficient services. Among the several proposals for a site upon which the projected hospital was to have been built, that of Mr. Marigny was for

some time favorably entertained. This piece of ground together with improvements was in the faubourg Marigny, a goodly portion of the now Third District. A fish market, or *poissonnerie*, stood in its immediate vicinity. Mr. B. Marigny tendered this location as a gift to the city. It was to have been devoted to charitable purposes, in the event that it would not prove acceptable for a hospital. That no importance had been allowed to the original site on Rampart street should cause no surprise. The city's limits having spread to a considerable extent in that direction, it was judged desirable that a hospital such as was contemplated should have been allowed more space; at all events, from the very nature of the contagious and infectious diseases then prevalent, it should have been located beyond the limits of the city proper. Further consideration of Mr. Marigny's offer was dismissed, and the year had scarcely expired with its trying perplexities, its many projects now favorably entertained, then discouragingly abandoned, in fact no definite result had as yet been reached, when the patroness and her curatrix, Mrs. Castillon, through her attorney, Mr. Derbigny, addressed the council in the following terms: The patroness "acknowledges that the change of domination in this territory had so altered the character of her rights and materially influenced the situation as well as the course of this hospital's administration that she has grounds to apprehend that the least misunderstanding between the city authorities and the lady patroness might jeopardize the existence of that institution. She furthermore sets forth that the patroness and her curatrix fully appreciated the necessity for a mutual agreement between the government and the patroness that would forever set at rest the pending contention; that the patroness cares little for her prerogatives, but would rather derive some satisfaction from the relinquishment of her rights to the hospital to a public corporate body upon which should devolve the supervision of an institution destined to promote the welfare of the community; that she and her curatrix would only ask in exchange, the privilege of being put in possession of the property situated in the basement of their actual residence without any prejudice to said hospital, and to that effect, the patroness, together with her curatrix, offer to redeem said basement story, for and in consideration of an amount which

would at once furnish the corporation with means that would go to aid in the building of a hospital, upon such site as it would select; that with this object in view, said patroness, together with her curatrix, are willing to make an offer of \$18,000, payable in cash, and that in case this offer prove acceptable, the patroness relinquishes all the rights which she may possess over the hospital; that, in truth, the corporation is not empowered to complete the present agreement; but should the corporation accept the proposition, the patroness and the curatrix would apply to the territorial legislature in order to have the corporation vested with powers to negotiate. This measure, though it may lack some desiderata that might give fuller security to the agreement, is at present the only practicable one, and offers a sufficient guarantee to the patroness to induce her to adopt it without any further misgivings."

The above was the signal preceding capitulation. The strong arm of the law had effected what moral suasion had for many years failed to accomplish. Preliminaries were gone through. The Legislature had granted the patroness's and the corporation's joint request on February 20, 1811, and the draft of an act of agreement had been submitted to the council and subsequently signed by the mayor. The relinquishment of the patronage and all its rights and privileges previously conferred by his Catholic Majesty upon Don Andres de Almonester y Roxas, with reversion to his heirs, direct or collateral, was effectually made by Mrs. Castillon, acting as curatrix in the stead of Miss Micaela de Almonester, the virtual patroness of the Charity Hospital of St. Charles. This took place on the 9th day of March, 1811. The conditions under which this relinquishment was agreed upon were on the part of the patroness for and in consideration of a sum of \$20,000, one-half payable in cash and the balance six months later on her promissory note bearing 10 per cent. interest per annum; on the part of the city the removal of the encumbrance upon the rents of stores in the basement story of the actual residence of the patroness and thereby the redemption of said story. Later on, in May of the same year, this payment was made in full with the council's consent. This sum of \$20,000 was deposited in the Bank of Louisiana and credited to the hospital. The Legislature had empowered the corpora-

tion to act in the temporary capacity of administrators of the hospital and to be the custodians of its moneyed property, with instructions to apply it to the construction of a new hospital. But not only did the corporation stand in the light of a paternal supervision of that institution; it also stood as its creditor. An indulgent, if not a strictly generous one, it had thus far proved. Since the very epoch of the fire until May, 1811, it had already disbursed \$2718.37½ to support it; had paid the rents of both the Jourdan and La Vergne houses, besides purchasing necessary furnishings and medical supplies. The Legislature's appropriation of \$2000 being deducted from the above sum an excess of \$718.37½ was left chargeable to the hospital. Besides, the immediate results arising from its sudden deprivation of the monthly income of \$150 accruing from the rents of the stores on St. Peter street were readily realized. Hence it was that a further petition was sent to the Legislature setting forth that the amount (\$20,000) proceeding from the relinquishment barely sufficed to defray the cost of building of such a hospital as contemplated, viz.: one which would be destined for the reception of patients from the whole territory, as well as from the city. They therefore petitioned the Legislature for a supplementary appropriation (the amount being left to its option) to aid in the construction of a hospital of this nature, thereby following precedents long established in other parts of the Union. They also asked to be authorized to dispose of such real estate of the hospital which they would deem most suitable for the purpose of realizing an adequate income to meet current expenditures, which, in their judgment, could be best effected by means of a perpetual annual ground rent. *They further asked to be dispensed from the obligation of building a hospital in case they should be offered an opportunity of purchasing a building that would answer all the requirements of a hospital,* and finally that the sum of \$718.37½, which was the hospital's indebtedness, should be reimbursed them from the territorial funds. A draft of this petition had been submitted to the council March 23, 1811, on which occasion some irregularity was indulged in; whereas, its proceedings should have been spread in their entirety upon the minutes, a very important measure had been omitted with the unanimous consent of the members then present. I refer to the

purchase of the Brognier-De Clouet place, the contemplated site of the new hospital. Messrs. Robelet and Fontane having been authorized by the mayor to transact this business with Mr. P. Cuvillier, owner of the above plantation, then reported that they had purchased to the hospital's account the main residence and the lot upon which it stood together with six adjoining lots, for and in consideration of \$15,200—of which \$10,000 was payable cash from the hospital's funds and the balance six months after date. This hasty purchase, this rash disposal of so large a share of the funds which an impoverished hospital had lately acquired at so great a sacrifice, with no assurance that the Legislature would come to its aid by means of a supplementary appropriation, provoked expressions of censure from a member of the council. Mr. Blanque bitterly denounced the surreptitious manner in which the proceedings of the former meeting had been conducted, and declared that inasmuch as they had not been spread upon the minutes, they were to be considered null and void. But his voice was hushed and his protest unrecorded. He was however informed that for motives which they did not express, and upon which as an impartial narrator I am not entitled to comment, the members of the council had unanimously pledged themselves to keep secret the nature of these proceedings, pending negotiations. This purchase of the Cuvillier house on the Brognier-De Clouet plantation, in the De Clouet faubourg (very likely in the vicinity of the street that now bears this name in the Third District), was, however, destined to be a thorn in the side of the corporation. Despite the pretentious claims of its purchasers to its being a superior location for a hospital, it was never used for that purpose. A most energetic protest was entered by the residents of that locality against the establishment of a pest-house in their immediate vicinity. During many years it remained an incubus upon the city corporation. Uncared for by the municipal authorities, it received no better treatment from its ill-disposed neighbors. Its battered-down fences, its broken-in doors, its grounds and gardens trampled and disfigured by loose roaming cattle, fully attested the universal odium which its projected destination had earned for this Cuvillier house. In later years during a severe epidemic of yellow fever, it was converted into a temporary hospital by the Ursuline nuns, whose convent was not far remote, and finally

became a picnic resort known as "Frascati." So much for the Cuvellier house, which the corporation, while settling its last accounts with the hospital, and after many fruitless attempts to secure a fair price for it and its several adjoining lots by auction sale, finally parted with it in 1817.

On the 23d of April, 1811, the Legislature provided, through a special act, for a thorough organization of the administration of the Charity Hospital. The Governor, its *ex-officio* president, was authorized by the above act to appoint six gentlemen, to serve as administrators, while on the other hand, the city council was to appoint three of its own members for the same object. Thus far the Governor's appointees had been Messrs. Felix Arnaud, Dow, Joseph Montegut, Butler, Bellechasse and M. Fortier. The announcement of this act to the council, through the mayor, gave rise to a violent discussion, which culminated in a resolution opposing this measure, adopted by a majority of nine votes. A minority protest was formally drawn by three members—Messrs. Blanque, Marigny and Lanna, and laid upon the secretary's desk, to be inscribed upon the minutes of that meeting. These pleaded their unwillingness to question the constitutionality of the act, and by openly resisting legislative measures to implicate themselves, together with the city, by an unlawful course, which would entail upon both a legal condemnation and its accompaniment of heavy costs.

What motives could have induced the members of the council to adopt this almost revolutionary course? Neither the mayor's messages nor the minutes of the council's deliberations can furnish us with a satisfactory solution. However, with the aid of some little perspicuity, I might almost say shrewdness, the enigma might possibly be deciphered. Reading between the lines, and through their guarded expressions, as we look over the minutes of their meetings in May and June, 1811, we might be led to infer that the alleged illegality of the above act of the Legislature was not the main ground upon which their resistance was based. Might it not have arisen, as the sequel will confirm, from their secret disinclination of being held to a strict account of their late indiscriminate disposition of the hospital's funds in the purchase of the Cuvillier house. Hence their misgivings, hence their opposition to enter into the composition of the board. Meanwhile the assistance of such able

counsel as Messrs. Moreau, Lislet, and Livingston had been called. Mr. Grymes being then the attorney for the territory. Mayor Mather, who had been an active participant in the purchase of the Cuvillier house, now counseled circumspection, "lest they should rashly commit themselves," and admonished them to signify their willingness to comply with the requirements of the above legislative act, provided its constitutional merits be favorably decided upon by the superior court. A decision having been rendered favorably to the act, and some opposition, or rather demurring, being still persisted in by the council, its president and members were ordered to appear before the aforesaid court and show cause wherefore a writ of mandamus should not be issued against them in order to enforce their compliance with the requirements of the aforesaid legislative act. This legal measure finally set at rest all further contention, and on November 6, 1811, Messrs. Robelot, Castanedo and S. Henderson, members of the council, were elected to make part of the board of administration of the Charity Hospital. Thus, apparently, for the nonce all further connections seemed to have ceased between that board and the city council, and words to that effect were inscribed upon the minute book, at the request of the members then present. At its next meeting, however, the council, upon a motion of Mr. Blanque, decided to have these expressions erased, which was accordingly done.

A noteworthy incident, forcibly illustrative of the precarious condition of the hospital during the epidemic of the yellow fever of 1811, is an appeal from the mayor to the *fabrique*, or board of trustees of the St. Louis Cathedral. These having, upon mere technical grounds, denied some helpful contribution from the church funds, Fray Antonio de Sedella, the historic Capuchin monk, then curate of the Cathedral, personally answered the mayor's call, who thus describes their interview: "In justice to Pere Antonio I should bear witness that, on this occasion, he manifested as much good will as could have been expected; having expressed his conviction that the vestrymen of his church were determined to take no action on this matter, he remitted in his name and from his private purse a sum of \$20 to be applied to the purchase of necessary articles for the hospital." These were to consist of bedsteads, sheets and mattresses, then sadly needed, in that fatal September month, with a restricted supply

of bed sheets, scarcely 104 in all. While admission daily increased, the unfortunate patients, as they were freshly admitted, were made to use befouled sheets and mattresses almost immediately upon the removal of the dead occupants. Nor were disinfecting measures applied, under these trying circumstances. Thus was the situation, with all its gruesome particulars, fairly exposed to the council, by Dr. Martin, then physician of the hospital.

A native of Provence (France), Dr. Martin was a physician of no little ability, who had earned quite an enviable reputation with the French-speaking population of our community. A dogmatic adherent of the old French medical school, a strict observer of the forms and conventionalisms of the old regime, with powdered hair and queue and frills he stately stalked a striking counterpart of the venerable Recamier of the Hotel Dieu. In 1853 and several years after, his son, Dr. Edouard Martin, was the attending surgeon of wards 6, 8 and 10, of the Charity Hospital. He died during the late war while acting as medical director of General Mouton's corps in the Trans-Mississippi Department of the Confederate Army. I was at one time, while an interne of the Charity Hospital, assigned to his wards, and was honored with his friendship.

Following the instructions of an act passed by the Legislature, April 25, 1811, a committee of two members of the board of administration of the Charity Hospital made a formal demand upon the council in order to recover all the removables and immovables, of the moneys, documents and other effects belonging to the hospital, which request was readily granted. It would, therefore, appear from the above action that some autonomy had been granted to the board. Still inasmuch as the council was represented by three members in the composition of the above, it could not be said that relations between these two bodies had been altogether severed. Following close upon the above summons, December 7, 1811, a still more important demand was made by the same committee previously appointed by the hospital administrators; for a reimbursement of \$20,000 which the corporation had received on the occasion of her relinquishment of her title and claims from the heretofore patroness of the hospital. To this peremptory demand the following answer was made: " True, this money had been remitted,

as above stated, by the patroness to the corporation. Yet, exercising the rights vested in the patronage which had been transferred to them by the Legislature, the council had employed a portion of these funds in purchasing an eligible location and suitable buildings for the purposes of establishing a hospital, and now held safely deposited in the Bank of Louisiana a balance amounting to \$4800. They further set forth that the hospital was already over \$3000 indebted to the corporation, that the latter were disposed to forego the above claim, and moreover, to donate the hospital with the proceeds of the sale of twelve lots in the Marigny faubourg, if its administrators would but consent to assume at cost price the location and buildings lately purchased in the Brognier-De Clouet plantation." This offer was rejected by the administrators of the hospital. From what can be gleaned from the council's proceedings at that time, it would seem that the corporation harbored designs of building an independent hospital of their own, whilst on their side the board had resumed their former intention of rebuilding upon the old site of the Almonester Hospital on Rampart street. I will not, in the present juncture, lead my readers through the intricate maze of the numberless propositions and counter-propositions then offered looking to a mutual adjustment of accounts, each party striving to secure the most advantageous terms in bargains that sadly lacked the self-denying promptings of original benefactors. A definite and satisfactory result was finally reached January 14, 1813, when a committee from the hospital (Messrs. Percy and Ducros) read at a special meeting of the council resolutions adopted by their board on the 12th inst., wherein the actual inability of that board to meet the expenditure incurred in the course of the administration of said hospital was clearly set forth, and, so also, their intention to petition the Legislature for an authorization to make an abandonment of all their control over said hospital in favor of the City Council of New Orleans. They further requested the council's cooperation in the framing and addressing of said petition to the Legislature. The council readily assented to the above propositions, which very likely they had already for some time expected; still some delay was incurred, the council having failed to stipulate the conditions under which they would have

accepted the proffered charge. About this time and a little previously, the board, or council (as it was then called) of administration of the Charity Hospital was composed of eight members appointed by the Governor, with the consent and advice of the Senate. In 1814 a momentous era dawned upon that institution. It was signalized by a voluntary surrender of its administration into the hands of the City Council of New Orleans. Negotiations favorably entertained and successfully conducted led, as a finality, to the building of a hospital upon the square bounded by Canal, Common, Philippa and Baronne streets, subsequently known as the State House square, and still more lately as the University Block. It was sold by the city to the hospital for \$5000, which were to be deducted from the city's indebtedness of \$20,000 to that institution. The council was to be allowed the custody of the balance due, and were to remit quarterly instalments, accruing from a 10 per cent. upon said balance. These were to be made payable in advance, and, whenever emergencies would arise, additional payments would be called upon to meet the demands of the builder of the projected hospital. Terms and conditions having then been satisfactorily agreed upon, the construction of the NEW ORLEANS CHARITY HOSPITAL was inaugurated in 1815, with Dr. McConnell as house surgeon. Dr. John Rollins occupied that position in 1823, and was succeeded in 1827 by Dr. David C. Kerr, a British surgeon, who had been left in charge of some of his countrymen, wounded on the 8th of January, 1815. He subsequently married and made New Orleans his home.

MALARIA—ITS CAUSATION A GERM CHIEFLY TRANSMITTED THROUGH WATER.*

BY H. J. DUPUY, JR., M. D., NEW ORLEANS, LA.

Bacteriology teaches that pathogenic as well as non-pathogenic bacteria live and multiply in different media. The aerial ocean is filled with these low forms of life. Water is also a favorite medium for these micro-organisms, which exert such a baleful influence on the human race. Specific diseases are propagated chiefly by aerial, or by water transmission. The patho-

* Thesis for graduation, Tulane Medical Department, 1897.

genic organism must find its way into the animal economy through that particular medium from which it draws its life.

The trend of medical opinion at this hour is of such a character as to warrant the assumption that malaria involves a specific cause. The *plasmodium malariae* is so constantly present in the blood of those afflicted with malaria that it is to be regarded in the light of the essential cause of this disease. That air contaminated by emanations from marshy localities is the etiologic factor in the production of malaria is a position hardly tenable. The plasmodium presents several characteristics which are strong arguments in favor of its being a living organism. It is endowed with independent motion, by which its position and form are altered. A period of incubation is assigned to it by most observers. But the most distinct feature of the plasmodium—that which seems, in the author's estimation, to place it in the category of the living organism—is its peculiar power to reproduce itself in successive crops at absolutely fixed periods. Whatever form malaria may assume, periodicity is its unique and distinctive feature. This fact alone would seem to point to the germ-origin of malaria.

The mode of transmission of the plasmodium is another question of paramount interest. Older writers considered it an "air poison." With such a conception of its nature the word malaria—*mal air*—was regarded as eminently suggestive of the manner in which this subtle pathogenic agent was transmitted. While the author maintains that the plasmodium is chiefly a water-born germ, he does not deny that this organism may live and multiply in the air.

If it can be proven by perfectly reliable data that the drinking of water from surface wells and subsoil springs in a malarial region is generally followed by some form of malaria; while on the other hand, if water from the same source is boiled and its use is not accompanied by any morbid effect on the system, then it should be conclusively demonstrated that the plasmodium is a water poison.

The author submits the following series of cases for consideration :

CASE NO. 1.—In July, 1896, the First Regiment of the Louisiana State Militia enjoyed a two weeks' encampment on the west shore of Lake Charles, Calcasieu parish. The tents were pitched

on a slight elevation of land, but within a stone's throw from the canvas city was a stretch of swampy area. South winds prevailed and every breeze swept over this malaria-infested marsh before reaching the camp. After twilight and in the early morning hours a heavy fog hung over the camp ground. If malaria results from the introduction into the system of air contaminated by emanations from marshy regions, here was every atmospheric condition favoring its transmission.

The order of camp life favored the production of malaria, if indeed it be an air-born disease. The men kept late hours and rose at 5 o'clock. It was impossible to exclude the heavy, moist night air from the interior of the tents. Out of four hundred men subjected to these atmospheric influences, only two were afflicted with malarial fever. The author was corporal of the ambulance corps, and his official report shows that these two cases of malaria gave a history of chills and fever before reaching the camp ground.

The water supply for this body of men was obtained from cisterns and from ice which was allowed to melt. The medical staff enjoined the men to drink no water obtained from the neighboring springs and rivulets.

CASE No. 2.—Professor Metz, of New Orleans, took his family to a summer resort bordering Lake Pontchartrain. The drinking water in this section is obtained from so-called artesian wells, which, in spite of its crystalline transparency, is subsoil water.

The water used by the professor's children was thoroughly boiled. Every person in the house contracted malarial fever except these children. It would be a total misapprehension of the facts to attribute the children's freedom from malaria to accident. Would it not be more logical to infer that the boiling of the water used by the children effected the death of the malarial germ, while in the drinking water of the other members of the household the plasmodium was present, and on being introduced into the system through this medium, produced its characteristic effects?

Dr. Gibson, of Haysville, Arkansas, furnishes the author with the following data, which have a direct bearing on the good results which follow the boiling of water: Dr. G. practises in a locality rife with malaria. Only one family in his section has

escaped the dreaded malady, that of a Presbyterian minister, who superintends in person the boiling of all water used for drinking purposes.

Captain V., of Franklin, La., a friend of the author's, makes monthly trips in the swamps, on a towboat. A supply of cistern water sufficient for the whole trip forms a part of the cargo. It sometimes occurs that the boat is detained on her return trip by low tides. Under these circumstances the officers reserve to themselves the exclusive right to use the cistern water. The negroes, composing the crew, are thus driven to drinking water obtained from the surface wells, which abound in those swampy regions. The consequence is that the greater number of them contract chills and fever during this delay. On the other hand, the officers who drink cistern water are perfectly free from any form of malaria. Can it be reasonably doubted that in this instance the different results as to the health of the officers and crew can be directly attributed to the respective difference in the qualities of drinking water used by the men?

One last proof, within the author's own experience, relative to water being the chief vehicle for the transmission of the malarial germ. Near the town of New Iberia, La., is a sheet of stagnant water dignified by the name of Spanish Lake. A canal drains the lake. But during a drought the lake no longer pours its surplus water through the canal. A greenish film of decayed vegetable matter covers this body of water. Years ago this part of the parish of Iberia which borders the lake was rightly considered as infested with malaria. No one in the neighborhood escaped it. But those were the days of surface wells. Cisterns were a luxury enjoyed but by a few. To-day this article is so cheap that even in the poorest community surface wells have been replaced by cisterns. The consequence is that malaria is no longer the scourge of this section, and yet every condition for its aerial transmission is present.

Surely all the facts in this case point to subsoil water as the chief source of contamination. Unless we arrive at this conclusion, how account, in a logical manner, for the subsidence of malaria on the introduction of cisterns in a community, especially, when every other atmospheric influence, once deemed favorable to the propagation of malaria, was still present?

The author has given unusual attention to the subject of water

supply in all those cases of malarial fevers he has met with in wards of the Charity Hospital. In the great majority of instances patients were drinking water from surface wells in a district known to be malarial. The testimony of experienced practitioners on this point fully corroborates the author's views. An impartial and attentive consideration of the data collected by the author with scrupulous care warrants the inference that malaria is a misnomer, and that owing to its being chiefly transmitted through the medium of water, it could, with greater scientific accuracy, be termed mal-aqua. Prophylactic medicine is the great science for the future. Malaria must fall within its scope. There is strong evidence in favor of its being a water-born disease. The author has recorded instances in which the mere boiling of water obtained from a malarial region had a salutary effect. The last deduction is, that the prophylactic treatment of malaria will deal with the water supply as the question of prime importance.

“Q. S.”

My wife went to college to be an M. D.,
 And when she'd become one she came back to me;
 And of course, while the subject was strongest upon her,
 She “diagnosed” me—and I guess I'm a goner.

She said that “she feared I had endocarditis,
 With traces of neuro-dichrotic cystitis;
 There were osseous abnormal sphenoidal dimensions,
 With ecchymosed hypno-nephritic retentions.”

She said I had “anchylosed, neurosed gastritis,
 Hepatic stagnation, acute meningitis,
 Meningeal hemorrhage, clearly pre-natal,
 Locomotor ataxia, lingering, but fatal.”

She said “I inclined toward brain aberration,
 When cardiac murmurs disturbed circulation.”
 Then added, in time “she would be more explicit,”
 But I said, “Nit, old girl. This is *quantum sufficit!*”

—*Ex.*

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

ANTIVIVISECTION AND THE UNITED STATES SENATE.

The medical press has here and there editorially and otherwise called attention to the Senate bill aimed at vivisection. The ignorant and misguided interpretation of vivisection has grown into a rank fanaticism. Forgetting the fact, so often adduced, that much of present medical knowledge and more of present surgical skill have resulted from experiments upon the lower animals, the promoters of antivivisection ideas have gone blindly on, with the air of salvators, champions of the defenceless dumb! They forget that vivisection has reduced mortality in many formerly desperate surgical cases; that vivisection has changed the scourges of several epidemic diseases into combatible afflictions. Over and over again has this argument been urged and it has been as regularly ignored. The methods of vivisection for scientific purposes have never systematically either contemplated or executed cruelty upon animals. Humanity has dictated the experiments for a humane result; not an idle curiosity for a fruitless experimentation.

There is a bill before the Senate—a bill which reflects the grossest charge upon the inherent qualities of the physician. At him the slur has been cast; it remains for him, individually and collectively, to take up the gauntlet and defend his own good name and that of his profession. Medical journals circulate for the most part among medical men. Medical men, however, do not need to be educated as to the true position of science in its relations to humanity in this important question. It is becoming the physician, nay, more, it is his bounden duty to begin a crusade against the *pseudo*-crusaders by influencing his friends, his patients—all those with whom he comes in contact—so that when the question comes to a point of issue our representatives at the National Congress can feel that they are guided by the

intelligence, the sympathy and the morality of the community in which they live. The conception of this attack upon the medical profession, which represents experimental science advanced by vivisection, was dastardly. The attempt to force a national body to consider a question of prime importance by veneering the truth with an appeal to a false sense of humanity should bring upon itself what it deserves, the confusion of defeat.

THE BERLIN INTERNATIONAL LEPROSY CONFERENCE.

Leprosy is an ancient disease and one which has persisted through many centuries in spite of all attempts at its control. These attempts have never been guided by anything except necessity, and have been regulated by nothing but the crudest kind of judgment, and that without even a shade of humaneness. Just as soon as the immediate occasion for control had subsided, the measures adopted were as quickly abandoned. Spasmodically and desultorily the outcry has been made that the disease threatens, but the alarm creates only a passing response. No systematic treatment of leprosy in a curative way has ever been evolved. Here and there sporadic therapy has been experimented with, to be cast aside as soon as a newer method was suggested. The results have been of little profit. Individual workers, earnest in effort and careful in observation, have tried to solve the problem, which has, until now, remained a veritable Gordian knot.

This year will be an epoch in the history of leprosy. For the first time a congress will be convened for the study of the disease in all its phases. The proposed assemblage will be composed of the most noted leprologists in the world, Hansen, the discoverer of the bacillus, among them. There may be nothing accomplished at this meeting of immediate usefulness, but the results will be far-reaching. It will be a concentration of the most enlightened thought directed at the solution of the best means of protecting the public, of ameliorating the condition of the leper, if not to enter the opening wedge in curative measures. Carrasquilla, at Bogota, Bouffé, in Paris, Kitasato, in Japan, have each proclaimed a different serum treatment. For nearly two years experiments have been carried on with various remedies at Molokai. Specifics have been suggested by

Gold-Schmidt, of Madeira, in europen, by Unna, of Hamburg, in ichthyol, by Carreau, of Jamaica, in chlorate of potash, not to mention the native oils and juices of India, and the host of agents employed in the various regions of the earth where leprosy has prevailed endemically and sporadically.

The Congress is to be held in Berlin, October 11 to 16, and papers are already listed from the leading observers from each country to be represented. Just as a Congress in Paris, a few years ago, has opened the way to a possible eradication of tuberculosis, so may this event prove as fruitful of hope. Louisiana is more than interested in the outcome of the Berlin conference, notwithstanding the apathy of the profession here with regard to the disease. With tens of thousands of lepers in China and Japan, thousands of them in the Hawaiian Islands, and as many more in the South American Republics, the question of international concert in action and jurisdiction for mutual protection is a vital one; national action must naturally follow in the adoption and execution of suitable legislation for the control and care of the lepers at home.

SMALL-POX IN ALABAMA.

During the past month small-pox broke out in Birmingham and Montgomery, Ala. It was necessary to call in government assistance to determine the character of the disease, notwithstanding the fact that the cases were fairly numerous. The occasion has been given some newspaper notoriety, but the disease has been efficiently kept in check until the character was definitely determined.

We congratulate the local authorities on the outcome, but can not repress the commentary upon the ignorance of a disease like small-pox. It is a sad reflection upon the intelligence of any urban profession, that the diagnosis of small-pox can not be made among a number of cases. It is the old story of lack of qualification in medical graduates, and the failure on their own part to realize their own obligation in the essentials of a medical education.

Every State Board of Health should have an adjunct commission of experts, capable of knowing the contagious diseases, especially those having objective evidences, like small-pox.

Medical News Items.

THE MEDICAL COLLEGE OF ALABAMA, at Mobile, in its announcement for 1897-98, has a list of thirty-two graduates in medicine and eight in pharmacy.

“ABOUT CHILDREN” is the title of a volume about to be issued from the press of the *Cleveland Medical Gazette*, written by Dr. S. W. Kelley, of Cleveland, O.

DR. T. S. KENNEDY has been appointed to succeed himself on the State Board of Medical Examiners. The appointment must satisfy all of the profession anxious for reform in the practice of medicine in the State. Dr. Kennedy has organized the work of his board as its president, and we are expectant of early action toward the good of all. Until now the board has only acknowledged its existence; it is time that it should demonstrate its position as a power for action. We congratulate the doctor on his reappointment.

A MEAT TAGGING LAW has been passed by the New Orleans City Council. It is intended to enforce a systematic inspection of meats for the protection of the consumer. The text of the law follows:

“SECTION 1. *Be it ordained by the Council of the City of New Orleans*, That from and after the passage of this ordinance it shall be unlawful for any person, firm or corporation to sell or offer for sale or deliver the meat of any animal, not considered game, intended for human food, within the city of New Orleans, without the same has been first inspected and passed upon and approved by the officers appointed and empowered for such duty by the Board of Health.

“SEC. 2. *Be it further ordained*, That such meat, when so inspected, passed upon and approved, shall be properly *marked or tagged* by said inspectors, and *same shall not be allowed upon the stalls of any market*, whether public or private, *unless so tagged and marked* after having been inspected by said inspectors of the Board of Health.

“SEC. 3. *Be it further ordained*, That this ordinance shall not in any manner affect the sale of salt, pickled, smoked or canned meats of any kind.

“SEC. 4. All ordinances or parts of ordinances in conflict herewith are hereby repealed, and any and all violations of the provisions of this ordinance shall be punished by a fine of not more than \$25 nor more than thirty days' imprisonment in the parish prison.”

DR. J. J. KINYOUN, Passed Assistant Surgeon, U. S. M. H. S., has been designated by the Treasury Department in Washington as delegate to represent the United States at the International Conference relating to hygiene and sanitary service on shipboard and railways, to be held at Brussels, Belgium. He is also designated as delegate to represent the United States at the International Leprosy Conference to be held in Berlin in October.

The Daily Lancet is the name of a new publication of Messrs. Bailey & Fairchild Co., of New York. This periodical is intended to be a medical newspaper, appearing daily.

The Georgia Journal of Medicine and Surgery is the title of a new publication in Savannah, Ga. It is neat and dignified, with several articles of merit in the first number. This journal will appear monthly, under the editorship of Drs. St. J. B. Graham, D. E. Dudley, W. E. Fitch, all of Savannah.

La Revue Médicale is a weekly published in Quebec, which made its initial appearance on the 4th of August. It is out on Wednesdays, and is published in French, as its name would suggest. The articles are by the leading talent of Quebec.

THE SEVENTH ANNUAL REPORT of the Eye, Ear, Nose and Throat Hospital, of New Orleans, is an interesting evidence of the valuable work done by this charitable institution. In the year ending December 31, 1896, 5565 patients were treated in the several departments; 34,535 consultations were given; 1050 operations were performed. The reports of the several departments are carefully elaborated.

The Pennsylvania Medical Journal has arisen from the discon-

tinued *Pittsburg Medical Review*, and it is now the official organ of the Medical Society of the State of Pennsylvania. The *Review* has always been a spirited champion of medical progress, and we trust that in changing name there will be no change in policy.

THE BRITISH MEDICAL ASSOCIATION meets in Montreal, August 31, September 1, 2 and 3. Dr. William Osler, of Baltimore, and Dr. Hermann M. Biggs, of New York, will deliver addresses.

THE SOUTHERN DENTAL ASSOCIATION held its annual meeting in early August at Newport News, Va. At the final session on August 6, the association reorganized into the Southern Branch of the National Dental Association. The following officers were elected: President, Dr. E. P. Beadles, Danville, Va.; vice presidents, Drs. W. E. Walker, Pass Christian, Miss.; T. P. Hindman, Atlanta, Ga.; F. P. Welch, Pensacola, Fla.; treasurer, Dr. J. B. Gradson, Knoxville, Tenn.; corresponding secretary, Dr. S. W. Foster, Atlanta. The next meeting of the association will be held at St. Augustine, Fla.

AMONG THE AUGUST ABSENTEES on vacation were Drs. A. J. Bloch, E. D. Martin, W. E. Parker, S. M. Fortier, William Kohlman, J. M. Lovell, O. Joachim and E. S. Lewis.

SANITARY INSPECTION OF SLEEPING CARS.—At a recent meeting of the Louisiana State Board of Health a set of resolutions were suggested, aimed at correcting the evils of the lack of sanitation in the public carriers entering the city of New Orleans. The resolutions follow:

Be it resolved, That every sleeping car entering the city shall, on its arrival, be thoroughly cleaned and disinfected under the surveillance of our sanitary inspectors, as follows:

1. The towels, bed-clothes, etc., to be submitted to a vigorous disinfection by ebullition in water for an hour, or sterilized in an autoclave or steam oven.

2. The closets and cuspidors (these should be of chinaware, not metallic) to be washed out with antiseptic liquids, and always provided with a supply of such solution.

3. The car proper to be disinfected by means of formalin.

This agent positively kills or destroys the germs of tuberculosis, diphtheria and small-pox in a few minutes. It causes no appreciable injury to the woodwork, upholstery and carpets. The method of applying it is very simple. It can be applied in the form of fumes or by a special apparatus. It applies to mattresses and pillows and cushions, as it possesses most penetrating properties. The disinfecting process can be carried out quickly and at little expense.

THE NEW ORLEANS SEWERAGE QUESTION was brought before the *Orleans Parish Medical Society* at its meeting of August 14. The desirability of efficient sewerage, the method of obtaining it, and the relation of the medical profession to the proposed plans were discussed for several hours. At the conclusion of the discussion, it was the sense of the society that the question from a medical standpoint was self-evident; that it resolved itself into a question of engineering alone. The only definite action of the society was in the adoption of resolutions stating: (1) That it would be a menace to public health to have the discharge pipe of the sewerage plant located at any point, emptying into the Mississippi river, within the city limits; (2) that it was suggested that Lake Borgne would be the proper place for the location of such discharge pipe. This was the sense of the meeting intended to be conveyed to the City Council for its guidance in the disposition of the sewerage matter.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

RUBBER GLOVES IN SURGICAL PRACTICE.

W. Zoegel von Manteuffel, of Dorpat, in No. 20, 1897, of *Centrbl. für Chir.*, expresses the belief that rubber gloves may be found to add materially to our means of providing against the dangers to wounds lurking in our hands. He considers the

problem of hand-disinfection as yet unsolved, despite the assertions to the contrary. The experiments of Kümmell, Fürbringer, Sängner, Reinecke and the demonstrations of Von Bergmann at the Berlin meeting of the International Medical Congress, together with the newer investigations of Lauenstein and others, all show the difficulties of doing this. A relative germ-freedom we may accomplish, not an absolute one, so that we must still partly depend upon the uncertain factor, the assistance of tissue cell resistance in correcting the perhaps not great errors in hand-disinfection. To add still further to our assurance he suggests the use of rubber gloves. He mentions the following special indications:

1. In operations on septic cases.
2. In operations on clean cases, where the operations can not be put off, and there has been recent contact with a septic wound.
3. In cases where the operator has sustained an injury or has furuncles and the operation can not be deferred.
4. In cases of sudden accident.

The gloves may and do, undoubtedly, diminish the dexterity of operating, but how little, says Von Manteuffel, is that to weigh against the absolute safety of a "boiled hand" (glove)!

Mikulicz, in an article in the *Centrbl. für Chir.*, July 3, 1897, emphatically commends the use of gloves in operations.

The numerous investigations of recent years concerning catgut suppuration and hand disinfection prove that surgeons and accoucheurs everywhere are not satisfied with the results of wound treatment. We find in literature numerous direct admissions of excellent surgeons that, in spite of aseptic precautions, wounds do not always remain sterile, and that sometimes severe, even fatal, wound infections occur.

As to catgut, Mikulicz believes the difficulties have been much exaggerated, and thinks it a relatively innocent factor in accounting for the mishaps in wounds. The question is, however, quite different with hand disinfection. That a real sterilizing of the hands is impossible must be admitted by all. The hands of the operator and his assistants remain still the unreliable constituent in the whole aseptic structure. The hands become all the more important by reason of the more frequent and freer contact with the wound than the chief instruments in use. The smallest mistake, the least sin of omission will avenge

itself severely. He who has had a few bad experiences in this direction can not rid himself of the painful consciousness that we make the fate of our patients dependent upon a trifling accident.

Such considerations impelled him about Easter, 1896, to solve the problem of hand disinfection in a simple manner. He experimented with sterilized gloves, and convinced himself that operating could easily be done wearing them, and that at all events no detriment to the patient was followed by their employment. He did not put them at once into universal use in his clinic, being urged by his assistants from all sides to make further trial of the efficiency of Fürbinger's hot-water-alcohol-sublimate method. This plan was kept up without satisfying success until February of this year, when a fatal ending from sepsis of a case subjected to radical operation for hernia determined him to make thorough trial of the gloves. This was done in hospital and private practice in all cases from March 1 to date of writing, giving a period of three months for testing. *All wounds* were so handled. The result was so conspicuous that Mikulicz can no longer doubt that the gloves have overcome the chief error in the previous systems of wound treatment.

"We have in the whole period experienced not one single infection of those wounds, which were, in order to obtain primary union, completely closed, and therefore not drained." Even the formerly frequent stitch canal suppurations have as much as disappeared. In the few cases in which the wounds were drained or left partly open, the secretion was as a rule sterile. Sometimes, however, a protracted secretion was to be observed, but without significantly disturbing the wound, healing, with a single exception; in this case the secretion showed pus cocci, chiefly *staphylococcus albus*. It seemed to him quite likely that in this case the bacteria of the skin of the patient had wandered in.

M. then describes the material of his gloves, and shows that their cheapness (2.70 marks per dozen in Breslau) makes them quite practicable for free use. They are to be boiled with the other dressings and instruments. Several changes of gloves may be made during an operation, where, during some of its stages, contact with a septic surface, like that of an opened stomach or intestine, becomes unavoidable. The gloves would permit the whole operation to be done in an aseptic manner.

Aseptic Precautions Against Infection from the Mouth of Operator and Assistants.—Mikulicz considers as real the danger of infection of a wound by the operator during the act of speaking, coughing, throat clearing and sneezing.

His attention was called first to this matter by his colleague Flügge, in Breslau, who demonstrated experimentally that even in quiet speaking bacteria may be conveyed from the mouth with minute bubbles of fluid into the surrounding space. It is the custom in Breslau almost not to speak at all during the operations, signs being made chiefly with the hand. But occasionally a word must be spoken. Moreover, one is compelled at times to sneeze. [According to Flügge, should one be so unfortunate as to have a cold he should refrain from operating or assisting.] Mikulicz thinks that all these dangers may be overcome by wearing a mouth bandage which covers also the nares. This bandage consists of a simple layer of mull, sterilized. It should cover also the beard, when the operator has one. For some time, Mikulicz and assistants have regularly worn this mouth cloth during operations. It does not interfere in the least with breathing and is, he thinks, of decided advantage as additional aseptic precaution.

Dr. George Perkins, first assistant of the Clinic in Leipsig, commenting in *Centrb. f. Chir.*, No. 26, on Zoëge Manteuffel's article, in *Centr.* No. 20, reports upon his use of the gloves in surgical work. He agrees with him as to the advantages of gloves in certain cases, but believes that rubber gloves are cumbersome and make operating awkward. He thinks the same aseptic advantages are to be found in silk gloves, which do not interfere at all with operative manipulations. He recommends gloves made of the finest silk web. Of course, the hands must be just as thoroughly disinfected beforehand, as they would be without the use of the gloves. They merely afford additional security and must in no sense be considered as substitutes for hand cleanliness.

COMMENT.—The earnest struggle of the Germans after aseptic results in surgery is certainly worthy of all commendation. No matter how thorough their aseptic technique, they seem never to be satisfied. One case of suppuration in a hundred means to them something materially faulty in their technique, and they straightway cast about for some more reliable method. No sug-

gestion from such honest workers seems worthy of a sneer, but should, on the contrary, merit our instant consideration. The use of gloves in operating is surely one that is worthy of trial by those who are sincerely desirous of permitting no avoidable contamination of their wounds. If the practice which has for years been recognized by Trendelenberg as an essential in aseptic operating, of never allowing the hand to go into a wound if the work could be done with a boiled instrument, can not be regarded as a silly refinement in surgery, then the use of sterile gloves must be considered as a valuable addition to our prophylactic resources. Mikulicz properly ascribes the first suggestion of gloves in surgery to Hunter Robb, who recommended them in 1894. They did not come into general use because of their inconvenience, but they have such apparent advantages in some respects that the wonder is they have not met with more general acceptance. A very excellent use for gloves, even rubber gloves, is that adopted by Halstead, in Johns Hopkins. Although operating sometimes without gloves himself, he makes all his assistants who handle instruments, ligatures and dressings wear them. Now, however, that Mikulicz, Perther and others have demonstrated the apparently equal protection afforded by silk, Lisle thread and other gloves, which do not hamper dexterity, we may hope to see them much more generally used by surgeons everywhere. Suitable gloves, known as Berlin servants' gloves, may be purchased in New Orleans at from 75 to 90 cents per dozen pairs, which makes their use quite practicable.

TOTAL EXTIRPATION OF THE TONGUE BY THE TRANS-HYOID ROUTE.

Mr. Vallas (in *Lyon Medical*, May, 1897) presents a patient, *et. 47*, from whom he had removed the entire tongue one month previously on account of an epithelioma of its posterior region, extending beyond the lingual V of the caliciform papilla.

The extent of the disease preventing a complete operation, Mr. Vallas performed a median osteotomy of the hyoid bone, according to his method, which he had several times adopted.

Trans-hyoid amputation of the tongue is in his opinion preferable to osteotomy of the inferior maxilla, which alone affords the same space for the complete extirpation of the tongue.

The sub-maxillary lymphatic glands are removed through the two incisions made in ligating the linguals; the median incision over the hyoid bone facilitates the removal of the two or three median supra-hyoid glands. The lingual lymphatic circuit is thus completely destroyed.

By extracting the tongue through the cut edges of the hyoid, it can be amputated as far back desirable as possible, the glosso-epiglottic furrow being visible. Furthermore, hyoid osteotomy is undoubtedly less dangerous than sawing the maxilla, which favors serious septic complications, retarding osseous union, impeding mastication and proper nourishment, which is of vital importance in malignant cases already cachectic and in need of rapid feeding. Cicatrization is complete within a month and the patient is allowed in the hospital garden. Phonation is but slightly altered; the linguals alone missing, the patient has but little difficulty in making himself understood. Deglutition is more impaired. The patient was fed for the first fifteen days by means of the esophageal tube left *in situ*. At present swallowing is still defective, the patient is still obliged, in drinking, to convey the liquids to the upper pharyngeal orifice by means of a receptacle with a long beak and to which is attached a long rubber tube.

Mr. Vallas has requested Mr. Martin to apply his artificial tongue. He hopes, with this aid and when the buccal floor will have regained a certain amount of elasticity, that the degree of function will correspondingly increase.

APPENDICULO-CECAL ACTINOMYCOSIS.—Mr. Viannay (in *Lyon Medical*, June, 1897), presents from Mr. Gangolphe's clinic a specimen of appendiculo-cecal actinomycosis, the first case of this kind observed in France.

The patient, operated on in June, 1896, for an abscess of Retzius' cavity of appendicular origin, was left with a pus-secreting fistula, in which Mr. Dor had several times noticed yellowish actinomycotic granules.

The patient succumbed to a progressive cachexia.

The autopsy revealed omental adhesions, an externally healthy looking cecum, the appendix encircling the ilium, adherent and with a well marked perforation.

Pus had burrowed along the muscular sheaths, of the psoas especially, and into the hip joint.

No other actinomycotic foci were detected in the viscera; the liver was found to be fatty, as in all prolonged suppurating cases.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, New Orleans.

VAGINAL FIXATION OF THE ROUND LIGAMENTS FOR BACKWARD DISPLACEMENT OF THE UTERUS.—Such fixation of the round ligaments was originally performed by Mackenrodt. A careful study of the different steps of Vineberg's operation will discover that it is really a utero-vaginal fixation.

OPERATION—"The anterior lip of the cervix is seized with two volsellae, and is drawn downward and outward to the vulva. Another volsella catches the anterior vaginal wall near the urethral opening (the mound just beyond the urethral meatus) and is held upward. In this manner the anterior wall is put on the stretch. Next, with a convex-bladed scalpel, a longitudinal incision is made, extending from the urethral mound to the vaginal attachment of the cervix, and as the scalpel approaches the cervix it ought to be made to enter more deeply into the tissues. If the vaginal wall has not been cut through entirely with the first stroke of the knife, as is usually the case, the division should be completed by seizing the wall on either side of the incision with anatomical forceps and by cutting between them. By observing this little caution there can be no risk of cutting the bladder. The two flaps thus created are now separated, partly by blunt and partly by sharp dissection, from the underlying bladder. In order to give one's self ample room, generous separation of the vaginal flaps should be made. The two flaps are then held asunder by tenacula near the cervix, and with a stroke of the knife the cervico-vesical septum is divided.

"The bladder is next pushed up from the uterus with the index finger, as is done in vaginal hysterectomy. It is well now to insert the index finger of each hand into the opening between the bladder and the uterus and dilate it to as great an extent as possible. Of course undue force in this step is to be con-

demned. The cervix is now pushed backward into the posterior fornix with the volsellae, a short vaginal retractor is inserted into the anterior opening and the bladder held up out of the way. By this manœuvre the lower part of anterior wall of the uterus is exposed. With the aid of sight, a traction suture is now carried through the exposed anterior uterine wall, as high as one conveniently can, by means of a short, stout curved needle. With this suture the body of the uterus is drawn downward and forward into the incision. The peritoneum is now opened. With the fingers introduced into this opening the tube can be delivered. At this a second or third traction suture can be placed into the anterior uterine wall.

The next step of the operation consists in carrying a suture behind the round ligament about three or four centimeters from its insertion into the uterus. The suture is passed from above downward, and is made to catch a portion of the tissues immediately beneath the ligament. A second suture is passed one or two centimeters nearer the uterus. This procedure is repeated on the opposite side. The round ligament sutures are carried through the vaginal flaps as near the pubic arch as possible. These sutures are tied loosely while the uterus is held forward by means of the traction sutures. The peritoneum is closed by continuous catgut suture. I frequently use in addition a uterine fixation suture to insure fixation. Before closing the vaginal wound the other uterine sutures are removed.

“For the ligament fixation suture, silkworm gut is used; for the traction, suture silk.”

COMMENT.—The several wounds in the peritoneal covering of the anterior uterine wall is amply sufficient, especially with the aid of the uterine fixation suture, to cause extensive uterine adhesion, converting the operation into one of utero-vaginal fixation, and not fixation of the round ligaments.

We find that of the fifteen cases reported, three became pregnant. Of these one had abortion at the third month, and two were relieved at term. On careful study of these fifteen cases, we find that eight (according to the doctor's own report) are still suffering.—VINEBERG, *Am. Jour. Obst. and Dis. of Women and Children*, July, 1897.

A CERTAIN AND SUCCESSFUL METHOD OF SHORTENING THE ROUND LIGAMENTS.—Dr. J. H. Kellogg claims that in 570 cases

operated by his method he failed but once to find the ligaments; he has found the ligament on one side in two minutes, and usually completed the operation in seven minutes. He makes his incision about two inches above the center of the external ring and close to the border of Poupart's ligament. The cut is made downward and inward, parallel with Poupart's ligament, and is only two centimeters long. The knife penetrates the skin and the subcutaneous fat. With small retractors the wound is spread open and the blood vessels kept out of the way. A couple more slight incisions are then made into the exposed tissue until the tendon of the external oblique muscle is brought into view.

"After exposure of the tendinous structure overlying the canal a small puncture is made with the point of the scalpel at a point from four to five centimeters above the middle of the external ring and about two millimeters above Poupart's ligament." A small blunt hook is introduced into this opening, the point turned toward the median line and the tissues drawn out. Generally the ligament is thus brought into view. The ligament is now separated from the surrounding tissues and drawn out with thumb and forefinger at least ten centimeters.

"The ligament is secured in place by removing it into the aponeurosis of the external oblique by means of two silkworm gut sutures," etc.—*Modern Medicine*, June, 1897.

A NEW INVENTION.—In the July number of the *American Gynecological and Obstetrical Journal* is an illustration of a very clever instrument for collecting urine in cases of inoperable vesico-vaginal fistulæ. It is the invention of Dr. N. G. Bozeman. The doctor and others who have experimented with it claim that it works very satisfactorily.

Department of General Medicine.

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

INTESTINAL ANTISEPSIS.

The list of antiseptics recommended and advertised of late years is certainly remarkable. For our intestinal foes we are offered a number of so-called reliable and even infallible weap-

ons; but, in practice, we generally find that, although the aim is good, the target is not reached or is hardly scored.

Since Maximowitsch (*Deutsche Arch. für Klin. Medz.*, 1896, Vol. LVII, page 439) recommended alpha naphthol, and his way of administering it, it appears that many who have followed his advice are satisfied with the results.

Alpha naphthol is three times less toxic and as many times more antiseptic than beta naphthol. Maximowitsch's way of carrying it to the desired place is truly as simple as it is effective. He administers it in solution in castor oil, thus having a reliable evaculative and antiseptic agent at the same time. His formula follows:

Alpha naphthol.....	3 grammes.
Chloroform.....	30 centigrammes.
Oil of peppermint.....	10 centigrammes.
Castor oil.....	q. s. ad. 100 cubic. cent.

It is taken with either wine, beer or hot and sweetened black coffee, in tablespoonful doses until effectual, as many as two tablespoonfuls being given from the age of ten years; from three to ten years, teaspoonful doses.

The exception taken to castor oil is in practice a serious matter. Yet the attendant must be firm. If the stomach of the patient actually rebels, only then should the drug be set aside, and an exclusive milk diet resorted to, the latter being verily a powerful antiseptic.

TOXIC ALIMENTARY DYSPNEA.—This was the very interesting subject of one of Dr. Huchard's clinical conferences at Hôpital Necker, Paris.

A man, 62 years old, suffering with difficult respiration for about three months, came to the outdoor clinic. At first, one might have thought he was affected with heart disease, properly speaking, judging from the phenomena he presented, viz.: a certain degree of arhythmia and a light murmur at the apex. But there existed also two other signs which showed that the arteries were more affected than the heart itself. These two important indications are the following:

1. At the aortic focus the second sound was very distinctly echoing, and even clangorous.
2. The subclavian arteries were notably elevated (their pulsations easily felt upon examination).

These two symptoms indicated a dilatation of the aorta.

In such cases we may say that the cardiac signs proper have little value, while the general and subjective signs are most important, and positively indicate an arterial cardiopathy. This patient, indeed, presents among other symptoms, a dyspnea of a peculiar nature.

This dyspnea, which arises generally under the influence of effort, but which also occurs spontaneously and at night, is of a toxic alimentary source. It is ordinarily styled uremic dyspnea, but in this, as in other similar cases, there should be made an important distinction.

True uremia is out of the question here, for the reason that uremia is the result of a complex auto-intoxication from abnormal elements which are not eliminated by the kidneys, while the toxic alimentary dyspnea is the result of an intoxication which the patient causes voluntarily, by ingesting certain elements whose toxins he is incapable of eliminating.

Now, if he eats meat, the dyspnea surely occurs, because he lacks thorough renal permeability, though he presents no albuminuria. The liver too is probably incompetent. Paulow and Massen, of St. Petersburg, repeating Eck's operation on dogs, viz.: the direct anastomosis between the vena cava inferior and the portal vein, thus suppressing the liver's functions, have noticed that if the animals ingested meat there arose very intense nervous accidents, among them dyspnea.

The word uremia is therefore inexact, when it is applied to intoxications of so dissimilar an origin, and to all cases of renal impermeability. Again, the latter is not the sole constituent of uremia; the character of the toxins which are to be eliminated plays a preponderating part. Indeed, let us suppose, for instance, two persons affected with the same degree of renal imperviousness. If one of them feeds on digitalis and the other on opium, would the resulting intoxications in these two cases be styled the same? A similar distinction should obtain for uremic and alimentary intoxications.

This distinction is important. The toxic alimentary dyspnea is an early symptom. It may manifest itself when the case is but little advanced, and the renal impermeability regarding alimentary toxins is met in the first period of cardio-renal sclerosis.

Alimentary intoxication is either acute or chronic.

Huchard reports the case of a man whom he had treated for a long time. Exclusive milk diet had caused the complete disappearance of the dyspnea. On a visit to Paris the man indulged in a copious repast, the menu including aliments which the doctor had explicitly and repeatedly forbidden, such as game and fermented cheese. That same evening the would-be epicurean had a formidable dyspnea, accompanied by a scarlatiniform eruption, and he succumbed inside of forty-eight hours.

Dieulafoy also reported a case which died in thirty-six hours after eating lobster and "*royans*," which were not of pristine freshness.

Such cases are difficult to diagnosticate, unless the patient has been observed previously, and at times they involve legal questions and forensic considerations which give them an important character.

In chronic cases the diagnosis may present another class of difficulties. As these patients may present a little arrhythmia and a light murmur, they are mistaken for heart disease cases, particularly when they also present a weak systole (hyposystole) and a passing pulmonary congestion. Digitalis is of course prescribed and the consequence is an aggravation of the case, for digitalis has no action on toxic dyspnea, which is due to other prominent conditions, viz., a general arterial sclerosis, and therefore incompetent kidneys. So we must examine the aorta and the whole arterial system.

Huchard lays stress on the following fact, not commonly known, that the alimentary toxins have a very well marked vaso-constricting power which explains the pallor of those chronically affected, being mistaken at times for cases of chlorosis and misnamed cases of "*chloro-Brightism*." Stop the use of meat which poisons these people, substitute for it a milk diet, and freshness and bloom will shortly follow, instead of that misleading paleness.

The alimentary toxins have such a constrictive action on the arteries that they may not only aggravate the vascular lesions already existing, but create at once a generalized arterio-sclerosis which is so often seen in flesh-eating gluttons and gouty people, gout telling on the arteries as hard and directly as rheumatism does on the heart.

In the consideration of these accidents, due partly to a lack of

renal elimination, the age of the patient is important. Brouardel's experiments should be recalled here and always borne in mind. Brouardel administered one gramme of salicylic acid to three persons aged 20 years, 45 years and 70 years respectively, all free from renal lesions. He afterward tested for the acid in the urine of each.

In the first one, the salicylic acid was detected one hour, in the second several hours, in the third seventy hours after the absorption.

Elimination lasted in the first, one day; in the second, three days; in the third, nine days. These experiments show that, even in the case of normal kidneys, elimination decreases with age, and that point therefore is to be considered when observing and interpreting cases of toxic alimentary dyspnea.—*Journal de Medecine et de Chirurgie Pratiques, Juillet 10, 1897.*

Department of Therapeutics.

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

THE TREATMENT OF APHTHOUS STOMATITIS.—Levi, of Venice (cited in the *Journal des Practiciens* for July 3), gives the following formulæ for topical application five or six times a day:

℞	Borax, powdered.....	4 parts.
	Tincture of myrrh.....	8 “
	Syrup of mulberries.....	60 “
M.		
℞	Borax, powdered.....	4 parts.
	Tincture of benzoin	2 “
	Distilled water	10 “
	Syrup.....	20 “
M.		
℞	Sodium phosphate	10 parts.
	Orange-flower water	25 “
	Honey of roses	50 “
M.		
℞	Salicylic acid	2 parts.
	Alcohol	10 “
	Glycerin	20 “
M.		

In severe cases the following may be given internally :

℞ Potassium chlorate	1 part.
Distilled water.....	90 “
Syrup of raspberries	10 “

M. Sig. A teaspoonful every two hours.

—*N. Y. Medical Journal.*

HOLOCAIN.—Under the above title Hering and Schlosser (*Klinische Monatshefte für Augenheilkunde*, April, 1897) describe a new local anesthetic which would seem to present some distinct advantages as compared with cocain. We shall not reproduce its extraordinary chemical name, but will be content with the statement that it is closely allied to phenacetin in its chemical composition. It acts very promptly, and is free from irritation; it has no effect on the pupils, accommodation, or blood vessels, and does not erode the corneal epithelium. A slight burning sensation is caused when it is dropped into the eye, but this disappears in from thirty to forty seconds. A 1 per cent. solution is recommended for ophthalmic practice.

ANTISTREPTOCOCCIC SERUM IN SCARLET FEVER.—Rappoport has employed antistreptococcic serum containing 0.5 of one per cent. carbolic acid solution in the treatment of scarlet fever in sixteen cases; four of these were not grave, and he thinks that the use of the serum prevented the aggravation of the infection. In two cases with symptoms of great infection the serum did not exercise much action; these two patients died. In the other twelve cases to whom the serum was given for the purpose of overcoming the symptoms no less than ten succumbed. He also found that the serum did not exercise any material influence over the ordinary course of temperature, and concludes that its use is not satisfactory. It seems to be necessary that there should be marked streptococcic infection of scarlet fever for this treatment to be useful.—*Revue de Therapeutique Medico-Chirurgicale*, December 6, 1896.

GUAIAECUM has received a renewed impulse in relation to its use in the treatment of chronic gout, by reason of the interesting discussion on this topic in the Royal Medical and Chirurgical Society of Great Britain, held on May 26 last, when Sir Alfred B. Garrod introduced the subject by reading a paper on “The Use of Guaiacum in the Treatment of Chronic Gouty Affections

and its value in warding off Acute Attacks." (The London *Lancet*, Vol. 1, for 1896, page 1494.) Sir A. B. Garrod thought that he had been successful in establishing the following points in regard to the action of guaiacum: 1. Guaiacum was innocuous, and might be taken for an indefinite period of time, and, looked upon as a condiment rather than as a drug, as harmless as ginger or any other condiment. 2. Guaiacum possessed a considerable power, but less than colchicum, in directly relieving patients suffering from gouty inflammation of any part; it might be given whenever there was but little fever. 3. Guaiacum taken in the interval of gouty attacks had a considerable power of averting their recurrence; in fact, it was a very powerful prophylactic. 4. Guaiacum did not appear to lose its prophylactic power by long continued use. 5. There were a few persons who could not readily continue the use of guaiacum; for such cases there were other drugs whose action was in some respects similar as prophylactics—perhaps serpentaria was one of the most powerful of these.

VALUE OF APOCYNUM CANNABINUM IN DROPSIES.—Dr. N. M. Baskett, in the *Medical Review*, calls attention again to the value of this drug in the treatment of dropsical effusions, whether due to organic disease of the heart or kidney, and claims exceptionally good results in the dropsical effusions of these conditions. The treatment outlined is as follows: Warm salt water and leg baths twice a day, followed with rubbing of the feet and limbs, afterward with a fluid extract of witchhazel. For its purgative effect, the following:

℞ Hydrarg. chlor. mitis.
 Sodii bicarb. aa. gr. $\frac{1}{2}$
 Podophyll. res. gr. $\frac{1}{16}$
 Ext. hyoseyam gr. $\frac{1}{4}$

M Ft. Caps. one.

Sig. Two at bedtime the first night, afterward one every night until bowels act freely.

The hemp and digitalis are combined in the following proportions:

℞ Tinct. apocynum cannab 3^i
 Tinct. digital 3^{ii}

Sig. Fifteen drops three times a day.

In a case cited by him the effusion was perceptibly lessened on the third day under this treatment. In ten days the dropsy had

completely disappeared. The labored action of the heart ceased. The dyspnea vanished. The patient now sleeps in bed like a child, a thing he had not done for weeks. Of course, he is not well, and will never be, but he has found relief from some very distressing symptoms.

SEILER'S ANTISEPTIC NASAL WASH.

℞	
Sodii bicarbonatis	ʒi.
Sodii boratis	ʒi.
Sodii benzoatis } aa	gr. iiss.
Sodii salicylatis }	
Thymoli	gr. 1¼
Eucalyptoli } aa	
Mentholi	gr. ¾
Ol. gaultheriæ	ʒgtt. i.
Glycerine	ʒi¼
Alcoholis	ʒii.
Aquæ, q. s. ad	Oii.
Misce.	

It is often necessary to dilute this wash owing to its stimulating effect on the nasal mucous membrane.

Miscellaneous.

BLINDNESS FROM JAMAICA GINGER.—Dr. Archibald G. Thomson read before the Philadelphia County Medical Society, June 23, 1897, the report of a case of complete blindness due to poisoning with Jamaica ginger in a sailor thirty-two years of age. He was not an habitual drinker, but would go off on sprees about three times in the course of a year.

He had always had good eyesight until December 22, 1896, when he came ashore and got intoxicated on Jamaica ginger. He drank it as he would whiskey, and remained drunk for two days, taking about a quart and a half of the ginger.

On the fourth day everything seemed hazy and his vision was failing, being accompanied with photophobia. The next morning there was a total central scotoma, and on the day following the blindness was complete. This condition lasted for seven days, when the vision began to return as it had disappeared, finally allowing him to read large print, only with difficulty.

however. Four weeks elapsed until that time. Three weeks afterward the vision began to fail very slowly until at present, three and a half months after taking the Jamaica ginger, his vision is R. E. = Fingers at 1 meter; L. E. = 1-c eccentric. The ophthalmoscope revealed exceedingly pale discs, with nearly total absence of the capillaries. There is an atrophy of the discs (greenish-white in color), occupied by the papulo-macular fibres. The atrophy is primary. The patient states that one of his friends who accompanied him on that occasion is also affected, but in a less degree, and that he has heard of several other cases in which the sight was affected by drinking Jamaica ginger.

The process of the disease is an acute-interstitial retrobulbar neuritis, or effusion into the sheath of the nerve. Consecutive atrophy followed the pressure as a result of the neuritis.

ANTITUBERCLE SERUM.—Dr. Paquin, in (quoted in Foster's Practical Therapeutics) reporting 226 cases treated with this serum, of his own preparation, reports forty recoveries and a large number of improvements.

NOTES ON THIOL.—Thiol is odorless, hence a grateful substitute for ichthyol. It is analgesic, and can be used in all sorts of inflammation. It promotes resorption of infiltrations. It is indicated especially in such conditions as carbuncles, lymphangitis, erysipelatous infiltration, general furunculosis, etc. These are among the conclusions of Wirz, in the *Deutsche Med. Wochenschrift*. He used thiol in a great number of cases for a great number of conditions. A case of typhlitis recovered in eight to ten days under local rubbing with the drug. Cases of otitis externa were successfully treated with thiol plugs.

For severe pains in the back after influenza, patients experienced lasting relief by rubbing thiol over the whole vertebral column. Patients with emphysema accompanied by marked dyspnea were relieved at once as soon as thiol was rubbed on the chest. Pains in the muscles of the thorax ceased, expectoration became easy, dyspnea and catarrh improved. In pleuritis exsuditiva as well as pneumonia cruposa, thiol was of great service either alone or together with veratrin and potass. iodide ointment 0.1:30 for pain in the chest.

QUININE A SPECIFIC IN MALARIA.—Dr. Register states that malarial fever without complications will subside after the plasmodia disappear from the blood; that quinine will eradicate the malarial poison completely if properly administered.

The failure of quinine in affecting the parasites of malarial fever in the blood, he says, is due to defects in the administration. He contends that the drug is imperfectly absorbed when taken by the stomach, and when the patient has a temperature above 102 deg.—*St Louis Med. Era.*

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.

Manual of Midwifery. By W. E. FOTHERGILL, M. A., B. Sc., etc. The McMillan Company, New York.

This little book is said by the author to be "a book for Edinburgh men by an Edinburgh man." In discussing the question of preserving the perineum the author believes that this can be better accomplished by having the woman fully extend her limbs instead of flexing them, as is almost invariably done. This should be done at the time when the head is about escaping. His reasons for such recommendation are that when the legs are flexed at the hips the skin all over the buttocks and back of thigh is tightened, but is more or less relaxed when the limbs are extended. He believes that this relaxing of the skin at these parts diminishes the tension at the vulva. Surely that's a "consummation devoutly to be wished."

The article on Eclampsia is short and consequently incomplete. It contains nothing new. The treatment suggested is the use of chloroform, morphia, rapid dilatation of os, delivery,

venesection, etc. Evidently venesection is not popular in Edinburgh, as mention is made that some withdraw ten ounces or so of blood when the fits are strong.

In discussing the theories of menstruation mention is made of Heafe's investigation of menstruation in monkeys. It seems that Heafe examined forty monkeys during menstruation and found ovulation going on in only two of them. Women conceive who have never menstruated; pregnancy occurs during the amenorrhœa attending lactation, etc. From these several evidences the author concludes that ovulation and menstruation are independent; that woman ovulates frequently and menstruates regularly.

We are told that a spermatozoon can travel one inch in seven and a half minutes (without the assistance of elevators and such like)! While there is no denying that there are several good features in this little book it is impossible to see anything in it that specially recommends it to the reader. To those who care particularly to read a book said to contain recent Edinburgh views of obstetrics it is referred.

MICHINARD.

International Clinics. A Quarterly of Clinical Lectures, Edited by JUDSON DALAND, M. D., F. R. C. P.; J. Mitchell Bruce, M. D., F. R. C. P., and David W. Finlay, M. D., F. R. C. P. Volume I. Seventh Series. 1897. J. B. Lippincott & Co., Philadelphia.

The usual variety of clinical lectures is found in this work. Judicious illustrations have been distributed throughout the text. For the most part written as lectures, the various subjects treated are practically presented.

DYER.

Reference Book of Practical Therapeutics. By Various Authors. Edited by FRANK P. FOSTER, M. D. Volume II. New York: D. Appleton & Co. 1897.

This is the second volume of the work with the above title, the first volume having been reviewed in the May issue of the JOURNAL. As in the first volume, the articles are all written by men who are prominent as authorities on the different subjects,

and some deserve particular mention: Nucleins, by J. T. Eskridge; Oxygen, by Solomon Solis-Cohen; Serum Treatment, by Austin O'Malley; Thyroid Treatment, by M. L. Foster; Toxins, by W. B. Coley; Transfusion and Infusion, by S. M. Brickner, all display individuality of thought. A short notice is given of the X-Rays as a therapeutic measure. We deprecate the notice given certain patent preparations. The index to both the first and second volumes is contained in this volume and has been very cleverly arranged. The volumes are substantially bound and Dr. Foster deserves much credit for his most admirable work.

STORCK.

Obstetric Accidents, Emergencies and Operations. By L. CH. BOISLINIERE, A. M., M. D., LL.D. W. B. Saunders, Philadelphia. A. W. Hawkins Co., New Orleans.

This little book is not intended to be a treatise on obstetrics, but deals chiefly with the surgical part of the art, and, consequently, is meant to be a sort of handy helpmate to the physician on occasions when such assistance is supposed to be required by the condition of the lying-in woman. While the work is well handled, there is practically no advantage in it over the several recent editions of standard text-books on this branch of medicine. It is not meant by these remarks to detract in the least from the worth of the book. It deserves reading because one can not read too much good advice. The use of forceps is very well discussed. The author wisely suggests that it is better to withdraw and reapply the blade several times, if necessary, in order to avoid *forced locking*. The author recommends, among other instruments, forceps of his own invention. This instrument is practically none other than Hodge's, with the defect of an added *roughened inner surface* of the blade to prevent slipping. It is certainly better to have the blade slip from the child's head than to have them bruise or tear the flesh.

In the treatment of eclampsia the author is a strong advocate of venesection, suggesting the removal of 16 to 30 ounces of blood. "A large opening should be made in the arm, allowing the blood to flow *pleno rivo*."

Nearly all the illustrations are by Dr. Robert Dickinson, and are taken from the American Text-book of Obstetrics.

MICHINARD.

Hysteria and Allied Conditions. By GEO. J. PRESTON, M. D. P. Blakiston, Son & Co., Philadelphia, 1897.

In a well written, handy volume of nearly 300 pages, Dr. Preston has presented his subject most interestingly. Symptoms, indications and conclusions are clearly and concisely stated, and are as readily comprehensible. Modern therapeutic measures, including electricity, hydropathy and hypnotism, are given toward the end of the book. The publishers have produced a well executed set of illustrations; the type and print are unusually creditable.

DYER.

Twentieth Century Practice of Medicine. Vol. IX. Diseases of the Digestive Organs. Edited by THOMAS L. STEDMAN, M. D. Wm. Wood & Co., New York, 1897.

The ninth part of this projected cyclopedic work on medicine is out. As with the preceding volumes of the work, this one is as comprehensive in its contents and preparation. Diseases, surgical and medical, of the mouth, of the intestines, of the several adjunct organs of digestion, viz.: the liver, spleen, kidneys, etc., are presented by contributors of repute. The illustrations are not numerous, but are well selected. As with other systems of medicine, this is useful as reflecting the views of the individual collaborators, who discuss the subject upon which they write from this standpoint. The publishers have exercised their usual care in the preparation of the volume.

DYER.

PUBLICATIONS RECEIVED.

American Text-Book of Operative Dentistry. Edited by Edward C. Kirk, D. D. S. Lea Bros. & Co., 1897.

Twentieth Century Practice of Medicine. Vol. XI. Edited by Thomas L. Stedman, M. D. Wm. Wood & Co., 1897.

International Clinics. July, 1897. J. B. Lippincott & Co., publishers.

Public Health Reports. Treasury Department, Washington.

Text-Book of Diseases of Women. By Chas. B. Penrose, M. D. W. B. Saunders, 1897.

American System of Practical Medicine. Edited by A. L. Loomis, M. D., and W. Gilman Thompson, M. D. Vol. II. Lea Brothers, 1897.

Tennessee State Board of Health Bulletin.

Bulletin of the American Academy of Medicine, July, 1897.

REPRINTS.

Position or Posture of the Patient During Parturition, with Special Reference to the Merits of the Wolche Position; Ventral Hernia Resulting After Abdominal Section and its Treatment. By A. F. Currier, M. D.

Hysteria in Early Life. By A. A. Eshner, M. D.

Some of the Causes Defeating the Proper Progress of Therapeutics. By H. Beates, M. D.

Notes on Some New Infusoria. By J. C. Smith.

Complete Blindness, Due to Poisoning with Jamaica Ginger. By A. G. Thomson, M. D.

Circumcision, with a Description of a Pair of Circumcision Forceps. By Alex. L. Hogdon, M. D.

Stone in the Bladder. By L. L. Hill, M. D.

The Deterioration of Our Race; Women Who Should Have Been Wives. By Lady Cook, nee Tennessee C. Claffin.

The Appendix "In the Interval." A New Method of Studying Its Pathology; The Prognosis and Treatment of Acute General Peritonitis. By Robert Abbe, M. D.

Further Report of Cases Treated with Anti-Tubercle Serum. By P. Paquin, M. D.

The Treatment of Complicated Ulcers of the Cornea. By Clarence A. Veazey, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR JULY, 1897.

CAUSE.	White	Colored...	Total
Fever, Malarial (unclassified).....	5	6	11
“ Intermittent			
“ Remittent	4		4
“ Congestive.....	3	1	4
“ Typho	3	3	6
“ Typhoid or Enteric.....	15	6	21
“ Puerperal	2		2
Cancer	10	2	12
Influenza.....			
Measles	1		1
Diphtheria	2		2
Whooping Cough	1		1
Apoplexy	8	4	12
Congestion of Brain.....	10		10
Meningitis	10	2	12
Pneumonia.....	3	5	8
Bronchitis	1	3	4
Consumption.....	26	35	61
Bright's Disease (Nephritis)	18	13	31
Uremia		1	1
Diarrhea (Enteritis).....	22	11	33
Gastro-Enteritis	3	1	4
Dysentery.....	6	2	8
Hepatitis	2	3	5
Hepatic Cirrhosis	5	1	6
Peritonitis.....	1	2	3
Debility, General	1	2	3
“ Senile	11	10	21
“ Infantile	3	3	6
Heart, Diseases of	21	10	31
Tetanus, Idiopathic			
“ Traumatic	1	1	2
Trismus Nascentium.....	4	9	13
Injuries	17	7	24
Suicide	4		4
All Other Causes	100	54	154
TOTAL	323	197	520

Still-born Children—White, 20; colored, 15; total, 35.

Population of City (estimated)—White, 184,500; colored, 69,500; total, 254,000.

Death Rate per 1000 per annum for month—White, 19.88; colored, 24.55; total, 22.69.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.03
Mean temperature	84.00
Total precipitation.....	4.72 inches
Prevailing direction of wind, southwest.	

October, 1897.

*Paullum sepultæ distat inertia
Celata virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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OCTOBER, 1897.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

(Established in 1844.)

EDITORS:

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

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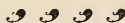
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Treatment of TYPHOID FEVER

A LATE number of the **Medical Record** contains an illustrated article on the abortive treatment of Typhoid as inaugurated by Dr. Woodbridge. The temperature charts of a number of cases treated in Bellevue Hospital are given, and the whole subject so completely reported that it is difficult to understand how there can be any mistake. Dr. Woodbridge has been accused of treating cases which were not typhoid, and yet reporting them as such. In these cases treated at Bellevue, however, the blood was examined by the bacteriologist of the Board of Health of New York City, and each specimen gave a positive reaction of the typhoid bacilli of Koch-Eberth. Therefore, the cases must be accepted as those of true typhoid fever. The patients had no baths, and were given only the Woodbridge treatment. In each case the disease was shortened, there was an absence of delirium, the tongue remained moist, there was a rapid disappearance of abdominal tenderness, and of tympanites and all offensive odor from the stools. — *Journal of Practical Medicine*, March, 1897, page 378.

BEWARE, HOWEVER, OF THE PRÉPARATIONS ON THE MARKET THAT DO NOT BEAR OUR LABEL. OURS AND ONLY OURS ARE ENDORSED BY DR. WOODBRIDGE.

All of our data upon this subject is at the disposal of the profession. Drop us a postal card, and our monographs, reports of cases and reprints of late contributions to the medical press will be promptly forwarded



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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. L.

OCTOBER, 1897.

No. 4.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

A PRELIMINARY REPORT ON THE USE OF ANTIVENOMOUS SERUM IN THE TREATMENT OF LEPROSY.*

BY ISADORE DYER, M. D.,

Professor on Diseases of the Skin in the New Orleans Polyclinic; Lecturer and Clinical Instructor on Dermatology, Medical Department Tulane University; Dermatologist to Charity Hospital; Consulting Dermatologist to the Eye, Ear, Nose and Throat Hospital, New Orleans; Member American Dermatological Association.

Notwithstanding the array of remedial therapy suggested in the treatment of leprosy, this disease still resists the continued efforts directed at its cure.

Rational deductive logic has suggested serum-therapy for use in this affection, and already three different lines of serum medication have been applied—by Kitasato, Bouffé and Carrasquilla—none as yet of exact usefulness.

In 1892 Carreau† reported the instance of a leper bitten by a venomous serpent, in whom there was marked disappearance of the tubercular lesions of the disease during recovery from the effects of the bite.

Shortly after this Calmette‡ and Fraser§ announced their experiments with snake venom in rendering animals immune against the effects of this kind of animal poison. Their experiments, conducted separately, demonstrated absolutely the fact

* Read at the International Leprosy Conference in Berlin, October, 1897.

† *Observation au Traitement de La Lèpre, Pte-à-Pitre, Jamaica*, 1892.

‡ *Annales de l'Institut Pasteur*, 1892, 1894, 1895, 1896 and *Lancet*, August 15, 1896; *Brit. Med. Journ.*, August 15, p. 599, and October 10, p. 1025.

§ *Brit. Med. Journal*, June, 1895.

that inoculation with attenuated or modified venom does render animals so immune as to prevent death from an inoculation of a dose of venom ordinarily lethal. Since 1892, both Calmette and Fraser have continued their experimentation, and to-day a laboratory at Lille, in France, under Dr. Calmette's direction, is preparing and distributing the modified venom, or antivenomous serum, to all parts of the world infested with venomous snakes. Already its usefulness has been demonstrated in India (case cited by Calmette, *loc. cit.*, *supra*).

At the time of the publication of Carreau's monograph, I was much impressed with the relation of the case in which constitutional change occurred in the patient who was snake-bitten. It occurred to me that if this much had resulted *accidentally*, how much more could be accomplished if snake venom were employed in leprosy *judiciously*.

I engaged in correspondence with the Smithsonian Institution in Washington, with the idea in view that from that source I should derive the best assistance. While planning my own line of experimentation, I saw Fraser's report. I at once wrote him, asking secrecy for the present, and begged of him a sufficient quantity of his laboratory product for my experiments. Professor Fraser promised this, but I presume the quantity at his command did not justify his sending it, as I have not as yet received it.

It was some time before I could obtain Calmette's antivenene, and a longer time before I could begin experimentation. Meantime I have at various points met with the historic reference to the superstitious belief among the natives of South America and the West Indies that the bite of a venomous snake would cure leprosy. Winslow* reports with careful and interesting detail a fatal result in a case, in Rio Janeiro, where the patient subjected himself to the bite of a mature rattlesnake, anticipating a favorable termination.

All this I briefly suggested in an article (written in 1894), which appeared recently in Loomis' American System of Practical Medicine.

Through the agents (Messrs. Meyer & Chalin) in New Orleans, I secured enough antivenomous serum to begin experiments in May, 1897.

**Lancet-Clinic*, Cincinnati, 1874. Vol. VI., p. 130.

Just here I desire to say that I realize fully that *whatever report may follow may be considered premature*. I should have preferred that the results obtained should have been more definite. This Conference, however, affords the best and most critical audience I could find for the work I have done. I have come with a *preliminary report, important or not, as you will judge, as a contribution to the possibilities of therapy directed against a disease*, for which we have as yet no cure.

On May 29, 1897, I began treatment upon a typical case of mixed leprosy, already marked with *leontiasis faciei* and with ectropic lips and eyelids; on this same day I also began with a second one, a typical case of macular anesthetic leprosy; besides these two, I have treated three other cases—five in all.

The treatment employed was administered as follows:

I. Calmette's antivenene (cobra presumably) was used throughout, courteously supplied by the laboratory at Lille, through the New Orleans agents. The serum was an amber-colored liquid of the consistency of very thin syrup, somewhat sticky. It was dispensed in vials tightly sealed, each containing 10 *c. c.*

II. The serum was given subcutaneously and dermatically by means of hypodermic syringes, the Pravaz antitoxin pattern being for the most part employed.

III. The dose varied from 1 *c. c.* to 11 *c. c.*

IV. The injections were made every second day at first; subsequently every day.

V. For the most part the injections were made in the gluteal muscles and into the skin in this region. Injections were also made into the interscapular space. Exceptionally (see cases below) the injections were made into selected leprosy lesions themselves.

VI. During the period in which this treatment was employed no local treatment whatsoever was allowed, no restrictions upon diet were made.

VII. No other medication was employed except during an interval of five days (twelve days in one case), while waiting for more serum. Then, $\frac{1}{80}$ of a grain of strychnin was given three times a day to each patient in order to keep them under observation. Four of the five patients, however, had taken strychnin over long periods previous to the serum injections.

VIII. All observations were made under my personal super

vision or direction, at the Eye, Ear, Nose and Throat Hospital at first, later at the Polyclinic, in New Orleans. Dr. Floyd Stewart, one of my clinical assistants, and Dr. H. J. Dupuy, of the Eye, Ear, Nose and Throat Hospital staff, have aided me in the observation and detail of this work.

IX. Sterilization of needles and syringes, with antiseptics of hands, was made a routine practice.

RESULTS.—Below are reported in minute detail the observations upon each case at the time each injection was made. In my opinion, the results thus far justify the report before you, although the experiments have been crude, and are as yet but begun. Summarized the results are as follows:

CASE I.—Injections from May 29 to August 3, and from August 23 to August 29. The total number of injections, 42; the total amount of serum injected, $127\frac{1}{4}$ c. c.; maximum injection, $7\frac{1}{2}$ c. c.; minimum injection, 1 c. c.

Constitutional Effects: Cold sweats twice a day; subsequently once a day, the only reaction. Improvement began after the fourth injection. The changes particularly noticed were in the disappearance of infiltration from the face, the resorption of tubercles on the face and of the ears, the restoration of the eyelids from the ectropion, and the return of a normal and natural expression.

Wherever local injections were made into individual lesions, the lesions disappeared. (Detail *infra*.)

CASE II.—Injections proved of no benefit. The patient suffered pain at each injection, seemed to grow anemic, lost weight so long as injections were continued. The treatment was for these reasons not systematically given. Injections were made from May 29 to August 3, and from August 23 to August 30. Total number of injections, 28; total amount injected, 48 c. c.; maximum injection, 5 c. c.; minimum injection, $1\frac{1}{2}$ c. c.

CASE III.—Total number of injections, 17; total amount injected, $38\frac{1}{2}$ c. c.; maximum injection, 3 c. c.; minimum injection, $1\frac{1}{2}$ c. c.

Injections made from June 28 to August 3, and from August 23 to August 29.

Improved steadily from fifth injection. No reaction from the treatment. Lesions have practically disappeared. Patient has regained the full use of forearm and hand, which were affected.

Except for a faint rosiness where the lesions were, and occasional stiffness of two fingers, there is no evidence of the original disease.

CASE IV.—Patient had been under treatment previously for nine months without improvement.

Injections were made from July 7 to August 3, and from August 23 to August 30.

Total number of injections, 18; total amount injected, $48\frac{1}{2}$ c. c.; maximum injection, 5 c. c.; minimum injection, 1 c. c.

The eruption occurring in characteristic macular patches afforded excellent opportunity for observation. The lesions have lost all of the original livid coloring; they have broken in contour; the borders being now quite irregular and fading rapidly from the edges. The macules are made up of grayish, irregular spots distributed over an area of skin healthy in color; the infiltration in these patches has gone; sensation at first absent has returned, so that the injections are painful. Patient has now sufficient use of hand to allow active work, formerly impracticable.

CASE V.—Improved after the first injection. The eruption on the face particularly notable in improvement. Injections made from July 21 to August 3, and from August 23 to August 30. Total number of injections, 10; total amount injected, 52 c. c.; maximum injection, 11 c. c.; minimum injection, 1 c. c.

This case had never had treatment of any sort before injections were begun.

COMMENT.—In four out of five of these cases treated, there has been marked improvement. In one, a practical disappearance of the lesions present and of other evidences. In only one case was there negative evidence; in this one, the age and frailty of the patient must be considered.

It is my purpose to continue this experimentation thus satisfactorily begun. I propose using stronger and stronger serum until it shall be practicable to employ the venom itself, more or less attenuated. In conducting the experiments herein reported, difficulties existed which should be noted. In the first place, there was the difficulty of getting patients to report regularly. Owing to the State law compelling the isolation of lepers, although it is not enforced, such persons as are afflicted with this disease tend rather to avoid observation than to seek it. The

leper home, the State institution for the detention of lepers, is at present more of an asylum than a hospital, and the opportunity of experimenting there was not at my command. More than this, the limited supply of serum compelled discrimination in the selection of cases and in the administration of the remedy.

Below are reported in minute detail the observations in each case :

DETAILED OBSERVATIONS ON EACH CASE.

CASE I. Et. P—o, 19 years of age, *mixed leprosy*. Until one year ago worked in a dry goods store. Was born in New Orleans, *Third District*, San Antonio street. No family history; no history of contagion. First came under treatment May 18, 1897, when he was given 1-60 gr. strychnin three times a day. On the 25th of May this was discontinued, it being determined to give ANTIVENENE.

At the time the injections were begun the patient presented the following conditions: A well nourished youth of five feet and eight inches (about), weighing 117 pounds. The eruption was general and symmetrically distributed over the entire body; most marked on the face, neck, buttocks and legs. The hands were discolored. In the regions noted particularly above, the eruption was quite diffuse, on the face much infiltrated. On the trunk, chest and belly, back and shoulders, the eruption consisted of distinct macules varying in size from a little finger nail to a silver dollar (from $\frac{1}{4}$ inch to $1\frac{1}{2}$ inches in diameter).

On the thigh and arms the lesions were less numerous, but were larger and less rounded, but longer.

The ears were thickened and tuberculated, as were the lips and nose. On the forehead there was some tuberculation, more marked on the cheeks.

The natural hue of the patient's skin is dull or sallow. The lesions vary in color from a buff to a dusky reddish brown, the color on face and buttocks being more livid or purplish than elsewhere.

On the thighs and legs many of the lesions have lost the pigment in the center, showing the dead white surrounded by a band of color. All lesions tested in all regions affected were anesthetic.

The eyelids were much swollen and infiltrated and showed a distinct ectropion.

The eruption has been present for three years. Began on left arm, the face being the last region involved, *leontiasis faciei* is marked. Even upon close questioning no antecedent history could be obtained, no evidence of premonitory symptoms, no eruption of bullæ on hands, etc. On Saturday, May 29, injections were begun.

May 29—Injected 1 cubic centimetre.—Left interscapular region.

May 30—2 c. c. Right interscapular region; temperature normal; patient perspired profusely on night following first injection; general condition of patient good.

May 31—2 c. c. Left scapular region.

June 1—2 c. c. Right scapular region; temperature normal. profuse sweating; no visible change in eruption.

June 2—2 c. c. Right scapular region; profuse sweating; spots on face changed in color, seem to be of lighter hue.

June 3—2 c. c. Right buttock; spots in regions of buttocks have lost some color; in the interscapular space many spots have lost color so as to have become indistinct; face is losing the puffy appearance; the lips are no longer livid, the lower lip particularly is almost normal in color.

June 4—2 c. c. Right buttock; weight 117 pounds; forehead clearing.

June 5—2 c. c. Right buttock; a few spots on chest have disappeared, about fourteen spots remain; spots over the belly have not changed; one large lesion on left wrist, one on lower portion of left thigh, and one on posterior aspect of left leg are fading to a dirty white; forehead and face are less infiltrated.

June 6—1 c. c. Left buttock.

June 7—No injection; tendency to tuberculation on forehead is gone; in fact, all over the face there is marked loss of infiltration; cheeks about normal in consistency, loss of tension creating the appearance of loss of color; shining duskiness has changed to a dull red; whole expression is far more natural. On back, eruption in large part has disappeared: only a few widely discrete macules, about ten, attest the former eruption; these macules are to-day very indistinct, some only visible in a strong light. On chest, some improvement, in that lesions have lost color, none have disappeared completely. On abdominal and lumbar regions no change is visible; arms and hands unchanged.

On buttocks, where most deeply pigmented spots were, color has faded over part of diseased area; where deepest color was, there have appeared distinct rounded white patches, perhaps twelve in all, each the size of a small finger-nail. While there is the suggestion of loss of pigment in the way of improvement here, appearances rather suggest the usual tendency of lepra macules to atrophy, so far as pigment is concerned, at the point of deepest discoloration. Eruption on legs has not changed, that on thighs has perceptibly faded. Altogether, patient's condition has decidedly improved.

June 8—2½ *c. c.* Left buttock. Had fever on 7th; profuse sweats; weight 117.

June 9—2 *c. c.* Right scapular region. Spots on chest reduced to ten, for the most part discrete, a few are confluent. Over abdomen there is slight diminution in number of macules, those present are aggregated in the left lumbar region. Since injections were begun, patient has suffered no local or general disturbance beyond the regular sweats.

June 10—2 *c. c.* Left scapular region. Temperature normal; patient still perspires profusely; anesthesia of deep and superficial parts still prevails. Lobes of ears have not yet lost their leathery appearance; the lobe of right ear is longer. General appearance of face is better. Macules on chest are now reduced to about six in number.

June 12—2½ *c. c.* Left scapular region. Temperature normal; weight 119 pounds. For the first time since treatment with antivenene has been instituted patient felt the thrusting of needle in area to be injected. Spots in lumbar region are gradually disappearing. Like changes are occurring in scapular and thoracic regions. Eyelids are losing their puffy appearance.

June 13—2½ *c. c.* Right scapular. Temperature normal.

June 14—1 *c. c.* Left buttock. Area injected was very painful, attended with fever on the 13th. Sensibility restored over general surface, though during the experiment patient manifested some hysteria, rendering the test less trustworthy.

June 15—2 *c. c.* in right buttock; 2 *c. c.* in left lumbar region. Sensation has returned on thorax, abdomen and along the back. Anesthesia still persists in region of buttocks, upper and lower extremities where macules are yet distinctly present.

June 16— $2\frac{1}{2}$ c. c. in right inguinal region. Fever night previous.

June 17— $2\frac{1}{2}$ c. c. in left inguinal region. Temperature normal. No visible alteration in condition of patient since last observation.

June 18—4 c. c. (2 in right scapular, 2 in right inguinal). Temperature normal. Face is gradually losing its leonine expression. Over thorax and abdomen spots are gradually fading to a more natural hue. Whole appearance of patient is decidedly better. His friends and acquaintances speak to him regarding the improvement of his condition, which they find especially in the change in the consistency and color of his face.

June 22—4 c. c. Right scapular region. Temperature normal. No appreciable change since last observation.

June 24—4 c. c. Right scapular region. Temperature normal. Spots on abdomen, especially in lumbar and umbilical regions, are assuming a lighter hue. No alterations visible in other parts.

June 28—4 c. c. Left scapular region; temperature normal; profuse sweating; no marked changes since last observation.

June 30—2 c. c. Right scapular region; temperature normal; no change since last observation.

July 5—Patient transferred to NEW ORLEANS POLYCLINIC, outdoor service. The eruption on back has disappeared fully one-half. On chest there is little evidence remaining, the few spots still evident are pale and yellowish. Face, cheeks and forehead have lost much of their infiltration.

July 7—3 c. c. Left buttock.

July 9—3 c. c. Right buttock; cold sweats every night.

July 11— $2\frac{1}{4}$ c. c. Left buttock; *in statu quo*; cold sweats nightly.

July 13—4 c. c. Left buttock; lesions on arms, chest and back have faded, more brown than red now: face is smooth; the buttocks are less pigmented.

July 15—4 c. c. in right buttock; cold sweats at night.

July 17—4 c. c. in left buttock; cold sweats only once since last injection.

July 19—3 c. c. Right buttock.

July 21—1 c. c. in left buttock; has a general eruption of furuncles.

July 23—No injection (no serum); face much smoother, particularly on cheeks and forehead; the eyelids are smoother and softer, the original ectropion is gone.

July 26—1 *c. c.* in right shoulder, and 1 *c. c.* right arm; cold sweats at night; the first of these injections was made into a small lesion the size of a silver quarter, the second into a patch on the arm.

July 30—Since last injection has had three cold sweats every day; sleeps well; appetite good. Patient states that since injections began he has felt no inconvenience, in fact has felt decidedly better. His condition to-day, two months since injections were begun, is as follows:

Face; the cheeks, nose and forehead are free of any tubercles or infiltration whatever; the skin here has become smooth and supple; the color has changed, until now, the appearance is that of a face well tanned, but a little more red than this. On the chin the skin is still a little rough to the sight, but is as smooth and supple to the touch as the cheeks and forehead are. The lower eyelids have regained their normal folds, which up to a fortnight ago were not observable, owing to the marked infiltration here; both lips are still swollen, but are normal in color, the lower lip is free from any evidence of the disease, though formerly the vermilion border was a line of tubercles. On the upper lip the vermilion border is still tuberculated, but much reduced in size, this is the sole evidence of tubercular leprosy on the entire body. The ears are slightly swollen, are still dusky red; therefore reduced in size, but changed in color. The eruption over his body has faded in color to a dull, pale brown or cocoa color, except on the buttocks, where the deep bluish, dusky brown still persists, there is no evidence of infiltration in any of these lesions.

The small lesion injected July 26 has disappeared in the area of injection, about one-half its size. $\frac{5}{8}$ *c. c.* injected into other half of same lesion; $\frac{1}{8}$ *c. c.* into lesion just above umbilicus, to the left of middle line, $\frac{1}{8}$ *c. c.* in lesion just below umbilicus to the right; $\frac{1}{8}$ *c. c.* in lesion on right shoulder; $\frac{1}{8}$ *c. c.* in lesion just above right nipple; 1 *c. c.* in large lesion just above left knee; 1 *c. c.* deep subcutaneous injection into left buttock.

August 1—Cold sweats last night, first time since last injection. Face is clearer. The spot on left chest where injection

was given, above the left nipple, has faded from a dark brown to a rosy pink. Spot on abdomen where injection was given is unchanged. Spot on left thigh is not so white. Weighs 117 pounds.

Injected: $\frac{3}{5}$ c. c. in right arm, in spot beginning at the lower margin of the deltoid muscle, and $\frac{2}{5}$ c. c. at the lower margin of the spot; this spot follows the course of the musculo-spiral nerve. $\frac{2}{5}$ c. c. spot over left nipple; $\frac{3}{10}$ c. c. spot over right nipple; $\frac{3}{10}$ c. c. spot to the left and about two inches above umbilicus; $\frac{2}{5}$ c. c. in spot two inches to the right of umbilicus; $\frac{3}{10}$ c. c. in spot one inch below and to the left of umbilicus; $\frac{3}{10}$ c. c. in lesion at the margin of sixth rib to the right of sternum; $\frac{2}{5}$ c. c. in spot on left arm lower margin of the deltoid in the center; $\frac{3}{10}$ c. c. in lesion two inches below the above; $\frac{3}{10}$ c. c. in lesion on outer surface in direct line from the above; $\frac{1}{2}$ c. c. in spot on back of right thigh; $\frac{1}{2}$ c. c. in spot on left thigh, above knee.

August 3—Right leg hurts in spot where injection was made; cold sweats last night; spot on left chest just above nipple has nearly disappeared: the spot to the right is swollen, raised and red in color; spot on right chest has nearly disappeared, and part is rosy red, the other dark red; the edge is brown; spots on abdomen are red, brown color disappearing; left arm near deltoid is light red; spots below are dark red; the skin around the spots is looking better; back is unchanged; face is still tan colored; spot on right arm near deltoid is clearer; the lower part is dark red; the spot on left thigh is red; spot on right thigh is assuming a more natural color, but hurts him, since last night.

Injected: $\frac{1}{2}$ c. c. right arm in spot; $\frac{1}{2}$ c. c. right abdomen in spot above umbilicus; $\frac{1}{2}$ c. c. left abdomen, above umbilicus; $\frac{1}{2}$ c. c. right interscapular space; $\frac{1}{2}$ c. c. right buttock; $\frac{1}{2}$ c. c. left buttock.

August 11—On the 3d the supply of serum was exhausted; $\frac{1}{80}$ of a grain of strychnin three times a day was ordered *pro tempore*. On above date patient reported that he still had nightly cold sweats; the eruption is fading generally, the forehead, cheeks particularly.

August 16—Strychnin continued; cold sweats still every night.

August 18—Cold sweats every night; spots individually injected on chest and shoulders have faded; strychnin continued.

August 20—*In statu quo*; cold sweats nightly.

August 23—Cold sweats nightly. *Injected* $\frac{1}{2}$ c. c. spot just left of umbilicus, one inch to the left; $\frac{1}{2}$ c. c. spot above and to the right of umbilicus; $\frac{1}{2}$ c. c. spot at eleventh rib, to the left of axillary line on right side; $\frac{1}{2}$ c. c. left arm, anterior; $\frac{1}{2}$ c. c. right and $\frac{1}{2}$ c. c. left interscapular spaces; $\frac{1}{2}$ c. c. in spot on back, midway between spine and axillary line; 1 c. c. in upper lip, tuberculated vermilion border; 3 c. c. in right buttock.

August 24—Cold sweat at 5 A. M. to-day. The spots on chest and belly last injected have nearly faded. Areas diseased on both buttocks sealing. $1\frac{1}{2}$ c. c. right buttock; $1\frac{1}{2}$ c. c. in upper border, $1\frac{1}{2}$ c. c. in outer border of patch above left knee, until now unchanged in appearance; $1\frac{1}{2}$ c. c. injected into three spots on belly.

August 25—Cold sweat at 3 A. M. Both buttocks fading. $1\frac{1}{2}$ c. c. in right buttock; $1\frac{1}{2}$ c. c. in left buttock; $1\frac{1}{2}$ c. c. in spot on leg.

August 26—Cold sweats every day. Spots on abdomen, where injections were given, are getting clearer, and the color is turning to a rosy pink.

Injected 3 c. c. in doses of $\frac{1}{3}$ c. c. in spots on chest; 2 c. c. in doses of $\frac{1}{3}$ c. c. in three spots on abdomen, two to the right of the umbilicus, about eighth rib, the other spot about three inches above and to the left of the umbilicus.

August 27—Cold sweats at 3 A. M. Spots on left buttock fading.

Injected $1\frac{1}{2}$ c. c. right buttock; $1\frac{1}{2}$ c. c. above left knee. *All injections painful.*

August 28—Cold sweats. $\frac{3}{4}$ c. c. injected into spots on belly; $1\frac{1}{2}$ c. c. injected, three spots on right chest.

August 30—3 c. c. injected, $1\frac{1}{2}$ c. c. into left buttock, $1\frac{1}{2}$ c. c. into lesion just above left knee.

Status Presens.—Face has improved steadily; to-day the forehead is discolored, a rosy red in the interpalpebral spaces and about one inch and a half toward the scalp. The cheeks and area of nose and alae nasi are likewise so discolored, fading to a pale brown at the outer parts of cheeks and on the neck.

The nose is larger than normal, likewise the lips; the upper lip still having a thin tubercular border, the lower lip being normal in color, but thicker than normal.

The ears are discolored, but thickened only at the lobes, and there only slightly. There are a number of small (size of little finger-nail) lesions on the neck, brown in color.

The chest has only a few (about five) lesions left, each fading at the edges rapidly. On the belly there are about twenty lesions, for the most part discrete, each one of which is fading at the edges, showing a brownish central portion, with a border of normal skin, fully one-half of the original area of the lesion.

The back shows a like condition, the lesion everywhere being framed as it were with a halo of healthy skin.

The right arm has patches of brownish lesions, broken in larger and smaller areas, these being the color of normal skin in places, in other places showing degrees of fading color.

The right hand is simply discolored.

The left arm and hand show similar change, only the disappearance of lesions is more marked.

The buttocks have so changed in appearance that the infiltration has gone; the area of discoloration reduced by fully one-third, while there are distinct areas of healthy skin at the points where injections have been made.

The thighs and legs show no evidence of improvement. The patient has gained five pounds in weight under treatment.

He has suffered no inconvenience from treatment. Altogether there has been improvement in the actual retrogression of all lesions on the body; the face, arms, chest and back having steadily improved, losing color and the lesions in numbers actually disappearing, leaving no traces behind.

Total number of injections, 42; total amount injected to date, 127¼ c. c.; maximum injection, 7½ c. c.; minimum injection, 1 c. c.

CASE II.—JEAN T—T, male, aged 7; *macular anesthetic leprosy*. Was first seen in 1895. At this time the eruption was scarcely more than erythematous, on the extensor surfaces of arms, thighs, and on the buttocks. The eruption was more marked on the right side of the body. Father healthy; was born and lived in St. James parish, near St. Martinsville (a leper community). Sisters and brothers of patient are healthy, six in all.

The patient was born in St. Martinsville, but has lived in New Orleans since one and a half years old. Has always lived in *Third District*. General health fair when seen. For the period

of time from March 5, 1895, to June 29, 1895, patient was treated with small doses (gr. v to gr. x) of chlorate of potash, and $\frac{1}{80}$ gr. of strychnin sulphate. There was perceptible improvement for a time, the lesions having disappeared on all parts excepting the buttocks. The patient's general health was affected, however, as he lost weight and became anemic. On that date (June 29, 1895) 10 grs. salicylate of soda in compound tincture of cinchona was substituted. Under this treatment the leprous lesions disappeared in the spring of 1896. In the fall of 1896, however, all the former lesions returned and more appeared. The salicylate was resumed, but up to May, 1897, no change in his condition was noticed, and the treatment had to be stopped from that time, on account of intercurrent illness—pneumonia once, bronchitis another time, and so on. It was decided to give injections of ANTIVENENE, although the patient was quite anemic at the time. On May 29 all treatment was discontinued, and the first injection given.

May 29—1 *c. c.* injected into left buttock.

Status presens: The patient anemic. Weight, 48 pounds. The eruptions, on arms, shoulders, interscapular space, on buttocks. On arms, large patches of light reddish brown covered the extensor surfaces almost *in solido*. On each buttock a deep brown patch entirely covered the surface, extending on each side down on the thigh. There was at no point any infiltration.

May 30—2 *c. c.* in right buttock; temperature normal; slight pain in area injected.

May 31—2 *c. c.* Left buttock; June 1—2 *c. c.* right scapular; June 2—2 *c. c.* left scapular; no appreciable change in the hue of spots, which are chiefly located on both arms and forearms, buttocks, and also in scapular regions.

June 3—2 *c. c.* Right scapular region; temperature normal.

June 4—2 *c. c.* Left scapular region; temperature normal.

June 5—Did not inject; temperature normal; weight, 48 pounds.

June 6—2 *c. c.* Left buttock; spots on lower extremities of forearms seem to be clearing up; no visible change in other regions.

June 7—2 *c. c.* Right buttock; great pain in area injected on the 6th; lower limb was very stiff; patient walked with difficulty.

June 8—No injection; patient had fever on the 7th; region injected very painful.

June 9—1 *c. c.* Right scapular region; no change in the appearance of spots.

June 10—1 *c. c.* Left scapular; temperature normal; no appreciable change.

June 11—1 *c. c.* Right scapular region; temperature normal; no visible change.

June 12—1 *c. c.* Left scapular region; temperature normal; weight, 48 pounds.

June 15—1 *c. c.* Left scapular region; spots on buttocks are breaking and assuming a lighter hue.

June 17—1 *c. c.* Right scapular region; no appreciable change; patient rather anemic; syr. ferri iododi prescribed (*3i t. i. d.*).

June 19—1 *c. c.* Left scapular region; temperature normal; no visible change since last observation.

June 22—1 *c. c.* Left scapular region, temperature normal; no visible change.

N. B.—From June 23 to June 27 patient was compelled to remain at home. During this period had spells of fever ranging from 101 to 102–103 deg. Fahr. Also experienced some intestinal disturbances in the form of a diarrhea which only lasted one day.

June 30—2 *c. c.* Right scapular region; no alteration.

N. B.—Will stop injections for one week, patient having had fever for a few days and apparently weakened. Arseniate of iron was given for a week and was referred to the POLYCLINIC for further observation.

July 7—1½ *c. c.* in left buttock; no change in eruption; iron stopped.

July 9—1½ *c. c.* in left scapular region; no fever; is less anemic.

July 11—1½ *c. c.* in right scapular region.

July 13—No injection; no change in any way; injections painful.

July 17—1 *c. c.* in left scapular region; no change.

July 19—2 *c. c.* in right buttock; eruption on arms is paler.

July 21—*No injection*; the patient is again depressed and anemic; there is little fixed improvement, as the lesions fade and show again from time to time; prescribed chlorate of potash, gr. 3; lactate of iron, gr. 3, with syrup and water, three times a day.

August 21—The patient has improved in general health, has some color, and has a good appetite; stopped internal medicine.

August 23—5 c. c. in right buttock.

August 24—1 c. c. in right arm; *in statu quo*.

August 25—1½ c. c. in right buttock; 1½ c. c. in left buttock; no change.

August 26—1½ c. c. in right buttock; 1½ c. c. in left buttock; no change.

August 27—1½ c. c. in left buttock; no change; has stood the last injection well.

August 30—*No injection*.

CONCLUSIONS: There has been no definite change in the eruption. The injections have been irregular. The patient has had intercurrent illness which may have interfered. Result negative.

Total number of injections 28; total amount injected, 48 c. c.; maximum injection, 5 c. c.; minimum injection, 1 c. c.

CASE III.—AUGUST R—, male creole, aged 47. *Macular anesthetic leprosy*, tropho-neurotic type. Family history good. Mother died of apoplexy; father still living; *Sixth District*. When first seen the patient presented the following symptoms of a peripheral neuritis: Pain along the ulnar side of right arm, extending down to the hand. Has been subject to attacks of rheumatism. The arm was swollen and the ulnar nerve was found to be somewhat thickened, with a nodosity the size of a hazelnut, just below the elbow.

The last three fingers were contracted and could not be straightened, the effort to do so causing pain along the whole forearm. On these three fingers there was an eruption of bullae, in size about that of a silver dime; in number four or five. In a few days these disappeared, leaving behind a superficial redness, which merged into discolored spots already present on the dorsum of the hand (right). The spots were of irregular shape, covering the third and last fingers, and involving the area over the first phalanx of the second finger. The whole dorsum of the hand was discolored in the same way—*i. e.*, a dusky, reddish brown. These spots were anesthetic, and this anesthesia could be determined well up the lower third of forearm on the ulnar side. The treatment followed was directed at a neuritis, as a history of trauma had been given (the patient, a

policeman, stated that a negro had bitten him on the hand now affected). He was given salicylate of soda, with the strychnin, antikamnia and iodides in turn.

He was relieved of the pain, but the stiffness and contraction remained. After treatment from April 6 to June 22 (during which time strychnin was given for fully three weeks constantly, $\frac{1}{50}$ gr. three times a day), the patient was sent for ANTIVENENE injection to the Eye, Ear, Nose and Throat Hospital. On June 28, 1897, injections were begun.

2 c. c. along course of ulnar nerve, upper third of right arm. Discolored lesion on hand, with large blisters on second and third fingers. General condition of patient is good; no lesions elsewhere on the body. Weight 174 pounds.

June 30—2 c. c. course of right ulnar nerve.

July 1—2 c. c. along course of the left ulnar. Patient has erysipelatous eruption right forearm, with much swelling. Lead water and laudanum prescribed, with quinine and salicylic acid internally.

July 2—*No injection*; erysipelatous condition much better.

July 7—Transferred to NEW ORLEANS POLYCLINIC; for few days past the hand has been less stiff.

1½ c. c. injected midway along right ulnar nerve.

July 9—2 c. c. into back, midway between spine and scapula on left side; right forearm much swollen. Since last injection patient chopped wood with an axe, using his right hand and arm.

July 11—2 c. c. left side of back, higher up than last injection; swelling reduced; can use hand more freely; no bullæ since July 3.

July 13—2 c. c. in right interscapular space, at middle of lower border; the size of forearm normal; no inflammation; the lesions on hand are half former size.

July 15—2 c. c. in right interscapular space; right elbow joint is stiff; creeping sensation along ulnar side of forearm; has occasional pain in little and ring fingers; sensation to pain (with needle) is marked over little finger.

July 17—2 c. c. in right interscapular space; sensation to pain restored over lower third of forearm, over hand and the first and second phalanges of third finger.

July 19—2 c. c. in right interscapular space; only one-third of area of lesions on the hand remains.

July 21—*No injection*; has use of hand; has resumed occupation; scarcely one-fourth of original lesions on the hand and fingers remains.

July 23—*No injection*; fingers burn and they are no longer anesthetic.

July 26—2 *c. c.*, right interscapular space.

July 30—2 *c. c.* in right interscapular space; the remaining lesions are fading in color to a rosy red.

August 1—3 *c. c.* in right side of back, between spine and scapula.

August 3—2 *c. c.* in right interscapular space.

August 5—Ordered $\frac{1}{80}$ gr. strychnin, three times a day, until more serum arrives.

August 11—*In statu quo.*

August 16—*In statu quo.*

August 23—1½ *c. c.* injected in principal spot at the first phalanx of third finger; spots are still paler in color; injection painful.

August 24—*No injection*; hand edematous; *cold sweat* at 1 P. M. on the 23d; the hand is painful.

August 25—*No injection*; swelling gone; spots fading.

August 27—3 *c. c.* in right interscapular space; cold sweats on the 25th and 26th, at 1 or 2 o'clock P. M.; slight pain at night in little and ring fingers; skin is glossy and rosy pink; lesions are seen well only by side light.

August 28—1½ *c. c.* right interscapular space.

August 30—*No injection* given; there is a faint rosiness over base of third finger, at second and third joints and over last phalanx; the same discoloration over the last phalanx of little finger. The patient has complete use of the hand and forearm, and complains alone of stiffness at night in the third finger.

CONCLUSIONS.—The improvement, then, is marked in that the contraction of fingers has disappeared, the nodosity in the ulnar nerve has gone, the thickening of this nerve has disappeared. He has improved in general health and weighs 186 pounds today against 174 pounds at beginning of injections, in spite of the fact that he is a policeman on night duty.

Total number of injections, 17; total amount injected, 34½ *c. c.*; maximum injection, 3 *c. c.*; minimum injection, 1½ *c. c.*

CASE IV.—Henry B—, male, 45 years old; carpenter. *Macular anesthetic leprosy*, with trophic changes in the left hand.

July 5, 1897. NEW ORLEANS POLYCLINIC—The patient is in good physical condition, weighs between 135 and 137 pounds. The eruption is widely distributed. *On the face* there is a duskiness with some telangiectasis, but no distinct eruption. The ears are suffused with redness. The chest, back, trunk and buttocks are free, excepting one small (silver half dollar size) lesion, on the right side just at the lower margin of the loin. *On the right arm* there is a distinct mottled lesion, just at the point of origin of the ulnar nerve; it is irregular in shape, rather ovoid, with the long axis running diagonally across the inner aspect of that part of the forearm. The lesion is dark brown, reddish, only at the edges, where the lesion seems to break into smaller particles. *On the left arm*, there is one small (size of a dime) lesion, bright red in color, just at the elbow joint. On the outer aspect of the arm, a lesion (size of a silver half dollar) similar to the one described on the other arm; this is just in the middle third. On the flexor surface and inner aspect of the arm, three inches above the wrist, is a larger lesion (size of a silver dollar), also mottled and discolored, as those above described, except there is a distinct purplish hue. On the third finger, dorsum, there is a deep purplish lesion running the entire length of the finger. On second finger a similar lesion covers the first phalanx. *On the right thigh* just above the knee, on inner aspect, is a large round lesion, two inches in the transverse, $1\frac{1}{2}$ inches in the vertical diameter. The patient is inconvenienced by the contraction of fingers of the left hand, which prevents his opening it, the condition being a characteristic "*griffe*." All lesions are markedly anesthetic to pain. The patient has been treated with chlorate of potash, salicylate of soda, in conjunction with strychnin, for nine months.

July 7—*Injected 3 c. c.* of ANTIVENENE in the back, midway between the spine and left scapula.

July 9—Patient states that until yesterday he had regularly a sensation of stinging and itching of both cheeks at night. Yesterday this had noticeably disappeared. Had a cold sweat last night. Never noticed this before.

Injected 2 c. c. in back at inner border of left scapula.

July 13—*2 c. c.* in left interscapular space just at the border of the scapula; has had cold sweats for four days. Pain in hips and back; fever for two hours, morning of the 10th.

July 15—2 *c. c.* right interscapular space; has had cold sweats, also headache.

July 17—2 *c. c.* in left interscapular space; cold sweats last night, headache.

July 19—2 *c. c.* right interscapular space; cold sweats; has headache nearly every day.

July 21—1 *c. c.* in left interscapular region; cold sweats last night. Fingers burn.

July 23—*No injection*; has more use of hands. Cold sweats.

July 26—Much more mobility of hand. 1 *c. c.* in smaller spot on external surface of forearm; 1 *c. c.* in spot on right thigh above knee; chill this morning. *Eruption has broken in every patch.*

July 30—Fingers of left hand are straighter. In *smaller spot on left forearm* a decided area has faded at the periphery. In the center of patch the eruption has broken and the color has changed to a dull gray almost throughout the patch. Injected $\frac{1}{2}$ *c. c.* In the *larger patch* in left forearm the eruption is broken in the center. $\frac{1}{2}$ *c. c.* injected. The spot at *right elbow* has faded very much, in places decidedly gray, in others light coffee color. Injected $\frac{1}{2}$ *c. c.* The lesion on *right leg*, injected $\frac{1}{2}$ *c. c.*, has not changed in appearance; the injection, however, caused decided pain—so much so that patient exclaimed when the injection was made. General condition good. Says left arm swelled yesterday (July 29) and day before (July 28) around the wrist. Cold sweat this morning.

August 1—Cold sweats. Small spot internal surface more broken. Spot on right elbow more broken.

Injected $\frac{1}{2}$ *c. c.* in small spot of left forearm; $\frac{1}{2}$ *c. c.* in large spot; 1 *c. c.* in spot right forearm; 1 *c. c.* spot above right knee.

August 3—Feeling well, sweating a good deal; no cold sweats; large spot on left forearm is clearer; spot at right elbow is clearer; 4 *c. c.* injected; $\frac{1}{2}$ *c. c.* into each spot.

August 11—Has had occasional cold sweats at night; the lesions on both arms are losing color distinctly; spot on thigh unchanged.

August 16—An evident progressive loss of color in lesions of both arms; patient has use of hand for his work as carpenter.

August 18—Was ordered $\frac{1}{60}$ gr. of strychnin, *pro tempore*.

August 23—Injected $2\frac{1}{2}$ c. c. in large spot on right forearm; 1 c. c. in larger spot on left forearm; $1\frac{1}{2}$ c. c. in spot on right thigh.

The lesions on left forearm have improved. The larger spot has faded, while the smaller spot has, at several points, resumed the color of normal skin, the original size having been reduced fully one-third. The change has occurred at the outer and lower borders, while at the upper border the spot has faded fully one-fourth of an inch. The color in the center of the patch now is in streaks, where formerly it was mottled in appearance.

August 24— $1\frac{1}{2}$ c. c. in spot on right thigh; $1\frac{1}{2}$ c. c. in small spot on left forearm. The right forearm is much swollen; the right thigh is painful in a considerable area around the injected lesion; *the face has lost all leprous expression*; the lesions on left hand have faded so as to resemble a faint glazed pink scar; the patient has more and more use of hand.

August 26—All spots are fading. For the first time this is noticeable in the spot on right thigh; the center of which is perceptibly clear, now grayish, where formerly brownish red.

Injection: $1\frac{1}{2}$ c. c., small spot on left arm; $1\frac{1}{2}$ c. c. in spot on right arm; $1\frac{1}{2}$ c. c. in spot on right thigh.

The lesion at region of the loin, which has never been injected, has disappeared. The small spot at right elbow is almost gone.

August 26—*Injected* $\frac{3}{4}$ c. c. in large spot; $\frac{3}{4}$ c. c. in small spot on left forearm; $1\frac{1}{2}$ c. c. in spot on right forearm; spot on thigh is clearer at the inner border.

August 27—Cold sweat this morning about 3 A. M. *The left forearm*—The spot on posterior aspect of forearm is much inflamed, so as to hide the eruption; but there is undoubted diminution in size. The larger spot on flexor surface is only inflamed in small area, the whole patch is much broken all through, the patch now being only spotted. *Right forearm*—The patch is still fading in the center. A notable phenomenon is the marked telangiectasis of these spots. The spot on right leg is a little more telangiectic and is fading in center.

Injected: $1\frac{1}{2}$ c. c. large spot left forearm; $1\frac{1}{2}$ c. c. large spot right forearm; $1\frac{1}{2}$ c. c. large spot right thigh; injections were painful.

August 28—*Injected* 1 c. c. in large spot left forearm; 1 c. c. in spot on right arm.

Marked inflammatory action at points of last injection in the spot on thigh, and in spots on the right and left forearms.

August 30— $\frac{1}{2}$ c. c. in anterior edge of lesion on right forearm; $\frac{1}{3}$ c. c. in posterior edge of lesion on right forearm; $\frac{1}{3}$ c. c. in small lesion on left forearm; $\frac{1}{3}$ c. c. in larger lesion on left forearm; $\frac{1}{2}$ c. c. in upper border of lesion on right leg; $\frac{1}{2}$ c. c. in inner border of lesion on right leg; *Left arm*—Hand is less contracted, but there is still inability to straighten the last three fingers. On only the third finger there is a rosy red patch of eruption. The hand is useful for all purposes and can be closed with ease. The two lesions on the forearm have improved steadily, markedly since last few injections. The smaller lesion, much inflamed from last two injections, has faded until it is now one-third of original area. The larger lesion has broken at the upper, lower and anterior border, and in the center, now being *about two-thirds original size*. *The right arm*—The single lesion at the elbow has disappeared fully one-third at the upper and and fully one-third at the lower border, the center of the rectangular lesion remaining has broken and faded in several spots.

The right thigh—The only lesion on the lower extremities has faded in the centre; has broken at lower and outer border. Altogether there has been a disappearance of the lesions in one-half their total area. The evidence of nerve leprosy has been so ameliorated as to have restored the usefulness of the hand and arm involved. The patient has improved in general health; has gained five pounds in weight under treatment, and has lost the facies of leprosy, strongly in evidence when injections were begun. He has latterly had cold sweats, but these have in no wise affected his appetite or general health. For the past week, the injections have been quite painful at every point.

Total number of injections, 18; total amount injected, 48 $\frac{1}{2}$ c. c.; maximum injection, 5 c. c.; minimum injection, 1 c. c.

CASE V.—Mrs. B.—ni, aged 47; *mixed leprosy*. A well-nourished, over-stout woman of German birth, weighing 176 pounds. Has had the disease for three months. She was ignorant of her condition, and came to discover the diagnosis.

The eruption was general and symmetrical in its distribution. It was thickest on the arms and on the back.

The face showed a thickened infiltrated appearance, with puffiness of the eyelids and of the upper and lower lips. The ears were swollen, but more edematous than infiltrated.

The neck showed numerous distinct flat lesions elevated and infiltrated. The chest was sparsely dotted with macules, the back was rather thickly covered with similar lesions. The arms were practically free from lesions. The forearms scarcely presented two square inches of healthy skin, the areas of these locations being covered with confluent and single lesions, papular but flattened, and varying in size from a tiny spot to lesions the size of a silver quarter.

On the buttocks, each side, there is a typical large leprous macule of the ring-like variety, with a white center and a light copper-colored band, the lesions being about two inches in the largest diameter. The thighs have a few scattered lesions, like those on the chest and back. On the legs there are patches of eruption, solid for the most part, especially in the lower portion of the legs. In the upper third of each leg, on the outer aspect, there are two or three macules with whitish centers, all, however, paler than the lesions on buttocks, but with a violaceous tint in the band around the white center. The general health of the patient is good, and but for the annoyance of the lesions present she suffers nothing. The lesions are everywhere anesthetic.

July 21, 1897—Injected 1 *c. c.* into left shoulder at upper border of scapula.

July 23—*No injection* (no serum). The face is less discolored and the lesions on arms and on legs are paler in color.

July 25—The left cheek is perceptibly paler; more so than the right; but both have faded. Injected 5 *c. c.* into right shoulder above the spine of scapula.

July 30—Infiltration of cheeks gone. The cheeks are simply rosy now and somewhat telangiectic, particularly in the alæ nasi. The forehead is infiltrated still in the interpalpebral space; over each arch there is a distinct infiltration, almost a tubercle; the nose is slightly discolored, but not enlarged; the ears are somewhat discolored, but not much enlarged. The eruption elsewhere on the body has not perceptibly changed. Injected 1 *c. c.* in right forearm, and one-half inch below elbow; 1 *c. c.* in left forearm, and one-half inch below elbow; 1 *c. c.* in left shoulder; 1 *c. c.* in right shoulder.

August 1—Injected 1 *c. c.* in left forearm, external surface, half inch below elbow; 1 *c. c.* in left forearm, anterior surface; $\frac{3}{4}$ *c. c.* in right interscapular space; $\frac{3}{4}$ *c. c.* in left interscapular space.

August 3—Injected 2 *c. c.* in left forearm, near elbow, in four injections; 2 *c. c.* in right forearm, near elbow, in different spots.

August 11—*In statu quo*; August 16—*In statu quo*.

August 18—*In statu quo*; $\frac{1}{60}$ gr. strychnin three times a day.

August 20—*In statu quo*.

August 23—Eruption unchanged since last observation. Injected in left forearm 4 *c. c.*; in right forearm 3 *c. c.*; in left leg 2 *c. c.*; in right leg 2 *c. c.*

August 25—On the 24th was too weak to come, felt listless; but this passed in the afternoon and since then she has had no evidence of ill effect of the injection. Injected 1½ *c. c.* in right leg; 1½ *c. c.* in left leg; 1½ *c. c.* in right forearm; 1½ *c. c.* in left forearm; 1½ *c. c.* in right interscapular space; 1½ *c. c.* in left interscapular space.

August 27—Face clearer, legs clearer; no reaction since injection. Injected 2 *c. c.* in right forearm; 2 *c. c.* in left forearm; 1½ *c. c.* in right leg; 1½ *c. c.* in left leg.

August 28—Weak yesterday; injected in left forearm, 2 *c. c.*; right forearm, 2½ *c. c.*

August 30—2 *c. c.* in right forearm; 2 *c. c.* in left forearm.

Status Presens.—The face has cleared on both cheeks, which are now quite free from infiltration. The neck has not changed in any particular. The forearms have lost a number of lesions in the lower third. The eruption in the upper third of the forearms has changed little, if any. The legs have improved decidedly, in that the eruption has faded almost completely in the lower third, and the macules of characteristic type at first have so changed as to have eliminated the distinct contour. The patient has suffered no effect from the injections. The improvement has been marked, then, on the face, particularly the cheeks, and on the legs.

Total number of injections, 10; total amount of antivenene injected, 52 *c. c.*; maximum injection, 11 *c. c.*; minimum injection, 1 *c. c.*

THE WOODBRIDGE TREATMENT OF TYPHOID FEVER.*

BY LOUIS G. LEBEUF, NEW ORLEANS, LA.

Dr. Woodbridge's abortive eliminative treatment of typhoid fever would be better named "The Abortive Antiseptic Treatment," because, no doubt, the basis of it is that of intestinal antiseptics. Nothing new in that. Nothing new in the agent he uses; they are reasoned upon the lines of well-known and thoroughly accepted theories of treatment. The only thing that the treatment has of originality is in the *modus operandi*. With antiseptic agents and a gradually diminishing dose of purgatives and cholagogues, as he diminishes his stimulation to liver and intestinal tracts, he *pari passu* increases the strength of his antiseptics. If following this method of treatment we limit ourselves to the Woodbridge system, rigorously using his tablets and capsules in the order of strength that he advises, and we arrest an attack of typhoid fever in the first and second week of the malady, where the presence of the *Coli-Communis Bacillus* or Eberth's bacillus is well authenticated by bacteriologic reports, then we can claim that we have aborted typhoid fever, a feat that was never done before, and prove that typhoid is no longer a self-limited disease which has to run out a well-mapped course. Even if we are not willing to accept the full treatment as given by Dr. Woodbridge, we surely can at least use it to a modified extent, as I have frequently done in my practice; I mean in the use of carbonate of guaiacol, menthol and eucalyptol in chronic diarrhea due to some septic origin.

The treatment itself consists in the use of two kinds of tablets and one kind of capsule:

TABLET NO. I—

Podophyllin (resin)	gr. $\frac{1}{960}$
Hydr. chlor. mitis	gr. $\frac{1}{16}$
Guaiacol carb.....	gr. $\frac{1}{16}$
Menthol	gr. $\frac{1}{16}$
Eucalyptol	q. s.

One of these tablets used every fifteen minutes for forty-eight hours will make 192 doses of podophyllin and calomel, which means a fair purgative dose of one-fifth of a grain of podophyllin and twelve grains of calomel. In one case—my most aggravated case—I used tablet No. I for forty-eight hours; in all

* Read before the Orleans Parish Medical Society.

the others only for twenty-four hours, and then went to the second tablet, which has the same purgative dose, but a larger dose of carb. of guaiacol and adds thymol:

TABLET NO. II—

Podophyllin	gr. $\frac{1}{60}$
Hydr. chlor. mitis	gr. $\frac{1}{6}$
Guaiacol carb.	gr. $\frac{1}{4}$
Menthol	gr. $\frac{1}{6}$
Thymol	gr. $\frac{1}{6}$
Eucalyptol	q. s.

Given every two and three hours until the looseness of the bowels has been reduced to one or two actions a day. Then

TABLET NO. III—

Guaiacol carb	gr. III
Thymol	gr. I
Menthol	gr. $\frac{1}{2}$
Eucalyptol	Min. 5

This last tablet or capsule, as it is a soft gelatin capsule, is used for a day or two, every three or four hours, merely as a bowel antiseptic and to check any looseness of the bowels. I have used it only in one case, as I found the others were quite enough; and I must admit some inherent fear in the continuous use of three grains of carbonate of guaiacol. In a case treated at the hospital upon which thorough notes were taken by Dr. Burthe, who was then a hospital interne, we had an immediate fall of temperature, after three or four weeks of continuous fever and an uneventful recovery outside of a tenacious phlebitis which kept the patient longer in the ward.

In the article of Dr. Henry, in "Hare's System of Practical Therapeutics," the statement is made that, "It must be admitted that there is no drug or method of treatment that will arrest the course of typhoid fever. The claims of the so-called jugulant methods are all open to serious criticism." The malarial blood-bacillus, properly discovered, is now destroyed by quinine—an infectious micro-organism destroyed by a specific medicinal agent. Why should not a combination of antiseptics, carried through the alimentary canal by purgatives, be the destroyer of the colibacillus of typhoid fever? There is no doubt in the minds of all physicians who have had many cases of typhoid that the principal indication in that disease is early antiseptics of the gastro-intestinal tract, as our known pathology of that illness shows the origin

of the diseased processes to start there. It has been proven lately by the school of French bacteriologists that in typhoid there is an alkaloid ferment, or a putrefaction of albuminous substances, always present, which must primarily influence the asthenic type of the fever. And it does seem that the theory of applying a direct antiseptis, which could stop this ferment and destroy the bacillus in its work on the Peyer's patches, is surely a good step in the line of prophylactic experimentation anyhow.

I am not posing as a defender or knight-errant of Dr. Woodbridge's or any other method, but surely in the line of battle against this dread disease were we to place one phalanx alongside of the Brand cold water bath treatment, it should be some gastro-intestinal antiseptic process.

In a few cases of what I believed to be typhoid, or typhoid *levissimus*, I have used a prescription which I find to act very well; I mean a continuous, oft-repeated dose of the mild chloride of mercury, salicylate of bismuth and sulpho-carbolate of soda.

CASE NO. I.—A negro boy, Westley Peters, *at.* 10 years, had every symptom of typical typhoid. I started the treatment on the twentieth day. Temperature $105\frac{1}{2}$ F., patient was in a violent delirium and vomiting every minute, the dose of one tablet every quarter of an hour was too frequent, he died before treatment could have had any effect twenty hours after we began the Woodbridge method.

CASE NO. II.—Charles Connors, white, *at.* 32 years, was seen in consultation with another physician in fourth week of typhoid; hemorrhages of bowels; rose-colored patches over abdominal region; gurgling in right iliac region; tympanites over whole abdomen; patient very much depressed; temperature 103 deg., in morning, 104 deg., in evening; started Woodbridge's method and in five days temperature was normal. In twenty-four hours tongue became moist, patient brighter and temperature was reduced. Exhibited capsule No. 3 in this case for two or three days on account of looseness of bowels. This patient recovered entirely from typhoid, but died since of pneumonia, acquired when he exposed himself too early to outdoor air.

CASES III, IV AND V.—The next three cases in which I used

the treatment they were two brothers and the brother of the previous patient. No doubt they were infected by the presence of the stools of the typhoid relative; the disinfection ordered was always made in the yard only after the stools had a chance to pollute the whole house. In all three cases after the type of fever was established I used the Woodbridge system with reduction of temperature always in the second or third day.

CASE NO. VI.—Young negro in ward 31 at the Charity Hospital, in which we had a confirmation of diagnosis by a report from the pathological department of bacilli of typhoid. We used the treatment in the third week, and had a fall of temperature in twenty-four hours. Case made a complete recovery, excepting for a tedious phlebitis of saphenous vein of right leg.

CASE NO. VII.—Julius Dannhauer, *æt.* 10years, white. Had a confirmatory report on July 18, from the bacteriologist of the Board of Health; perfect agglutination. Started Woodbridge treatment on the tenth day of fever; temperature then 105 deg.; was reduced in two days to 99 deg. F.; made a complete recovery in six days.

CASE NO. VIII.—Miss Mamie Dannhauer, *æt.* 25, sister of Case No. VII, who had nursed patient all through his illness. Woodbridge method was started when temperature had reached 105 deg, on the eighth day of fever, and there was a special fall on the tenth day, fever then running its course mildly with much reduced temperature until the end of the third week.

In closing these few short notes I desire to say that experience is, after all, the best physician, and that we all have to accept and use part of all the processes and methods known to us; neither entirely to limit ourselves to diet, nor entirely to cold sponging or cold baths, nor even always to gastro-intestinal antiseptics, but a good, intelligent combination of all these in the order named, as to importance, and, finally, remember a quotation of Dujardin-Beaumetz:

“*Le meilleur traitement de la fièvre typhoïde est un bon medecin.*”

Clinical Reports.

POST PARTAL HEMORRHAGE, SALINE INFUSION, SEPTICEMIA, RECOVERY.

BY A. C. KING, M. D., ALGIERS, LA.

Thinking this case may interest those watching the progress of saline injections as a therapeutic measure, I submit this report.

June 23 I was hastily summoned at 3 P. M. to Mrs. G., III-para, who had been delivered of a living female child at 2:25 P. M. by a midwife. Midwife had "left everything all right" and had gone home, two doors distant, but had been called when hemorrhage started. I found her kneading the uterus after giving fld. ext. ergot $\mathfrak{Z}ii$ by mouth. Uterus contracted, patient collapsed and gasping for air, pulse thready and feeble, pupils dilated, lips white and bloodless. Gave thirty minims of ergot hypodermically, applied ice to abdomen and continued kneading the uterus until positive of firm contraction. Removed clots from vagina and gave hot douche. Strychnia sulph. gr. $\frac{1}{5}$, with atropia sulph. gr. $\frac{1}{60}$, hypodermically. Some improvement in general condition until 3:40, when pulse became feebler, respirations more sighing in character and death seemed imminent. The husband and sister were made acquainted with the desperate nature of the case and saline infusion recommended as the only possible means of saving her life. They assented readily, and returning to my office, a few doors distant, I procured the solution, ready prepared, and all necessary apparatus, summoned Dr. J. R. Adams, and in twenty minutes had everything in readiness.

Introduced about 1000 *c. c.* into the median basilic vein of right arm, slowly. In a very few moments I had the extreme pleasure of witnessing the return of color to my patient's face, the pulse grow stronger and firmer, respiration less sighing and an expression from her of feeling better. A little water given by the mouth; continual watch was kept on the uterus; foot of bed elevated six inches. At 5 P. M. gave few spoonfuls of hot beef broth; nausea and vomiting, followed by immediate collapse; pulse quite gone and patient seemed dying. Quickly

removed sutures from skin ligature from vein and carefully injected a second 1000 *c. c.* of fluid with as good result as at first. After this nothing more given by mouth for several hours, for fear of again upsetting stomach.

6 P. M., pulse 130, gave strychnia sulph. gr. $\frac{1}{50}$; 7 P. M., reactionary temperature of 102 F., patient comfortable, uterus firmly contracted; strychnia sulph. gr. $\frac{1}{50}$ every three hours, ergot ℞xxx, every six hours ordered. Milk or water in minute quantities after stomach seemed well under control. 11 P. M., patient's condition good, pulse 120, with good volume.

Questioned midwife closely regarding the placenta and was assured that it had come away in its entirety.

June 24—Morning temperature, 99 deg.; comfortable day; evening fever of 100.6 deg., pulse 120; light nourishment.

June 25—Morning temperature, 101.4 deg.; evening, 103 deg. Suspected retained clots and possibly fragments of placenta or membranes, so gave thorough intra-uterine douche removing clots only, returning fluid coming away clear toward the last.

June 26—Morning temperature, 101.2 deg. Thorough anti-septic precautions; uterus thoroughly curetted, removing a considerable quantity of decomposing placental tissue. Swabbed interior of womb with pure hydrogen peroxide by using absorbent cotton clasped in jaws of long forceps; irrigated with 3 per cent. creolin solution and packed with iodoform gauze. Evening fever of 105 deg., showing profound septic poisoning.

June 27—Morning fever, 101.2 deg.; patient comfortable and feeling better. Gauze removed; thorough swabbing with peroxide, followed by irrigation with creolin solution. Evening fever, 103.6 deg. Liquid nourishment given from first.

From this date on daily intra-uterine douches 1-3000 bichloride, preceded by peroxide application, and under this treatment, combined with strychnia sulph. gr. $\frac{1}{30}$, and tr. digitalis ℞ xv every three hours, the temperature declined steadily, reaching normal on the seventeenth day after delivery.

On several occasions the curette was gently passed over uterine interior, to remove any stray particles of septic material not removed by the douche.

Began on eighth day giving Armour's glycerine ext. red bone marrow in teaspoonful doses four times daily. An abundant flow of milk was established on fourth day after confinement,

but a puppy was used to relieve the mother, it not being deemed wise to allow the baby such poisoned food, this little lady being supplied with a wet nurse.

The fluid used in this case was not the ordinary saline solution as is usually employed, but a modification of Ringer's fluid used for the past two years in the Massachusetts General Hospital. Eades says, in the *Boston Medical and Surgical Journal* of March 4, 1897:

“ A modification of Ringer's fluid has been in constant use in the Massachusetts General Hospital for about two years. The formula is 0.1 gramme Ca Cl, 0.75 gramme KCl to 1000 *c. c.* normal salt solution. This fluid has been chiefly used for intravenous infusion, by means of a canula, in quantities of 500 to 2000 *c. c.* Its use in this hospital started from a suggestion made to the writer in 1894, by Dr. William H. Howell, formerly Assistant Professor of Physiology in the Harvard Medical School, who was then repeating some experiments of Sidney Ringer. One set of these experiments showed that calcium salts are essential to the clotting of blood. Another set consisted in passing different fluids through an isolated heart (frog's), and observing the character of the beats and the length of time the beating was sustained by such fluid. Blood serum sustains the beats well and for a long time. A solution of the albumins of the serum without salts does not sustain the beats well, nor does a simple normal salt solution. The addition of a calcium salt alone to the salt solution causes strong beats, which, however, are too prolonged, and therefore insufficient. The addition of a small amount of potassium chloride corrects the character of the beat, and this combination, normal salt solution, plus calcium, plus potassium, will sustain heart beats as well and as long as blood serum.

“ The idea lay very near to supply such a fluid to the circulation in cases of extensive hemorrhage in place of using simple salt solution, which, experimentally at least, does not sustain the heart so well. Ringer's fluid is 100 *c. c.* of a .75 per cent. solution of sodium chloride saturated with calcium phosphate, adding 1 *c. c.* of a 2 per cent. solution of potassium chloride. This is not convenient for use in surgery, however, because the boiling necessary for sterilization precipitates a phosphate of calcium. This might possibly be evaded by sterilizing the ingre-

dients, but in the Massachusetts General Hospital it was found more convenient to use the soluble chloride of calcium.

“The difficulty of comparing the action of Ringer’s fluid with that of normal salt solution is extreme, as the cases where either is used show such tremendous variations in prognosis. It seemed to the author when he first used the fluid intravenously in accident cases in the winter of 1894–95 that the effect was more permanent than that of salt solution. Two or three remarkable recoveries from hemorrhage and from shock have occurred with, and possibly because of, its use.

“It is possible that a modification like that of Dr. Locke, containing 0.3 gramme calcium chloride to the litre instead of 0.1 gramme, as used in the Massachusetts General Hospital, is more advantageous; and, again, it is possible that one percentage may prove better adapted for intravenous use and another for rectal. It is much to be desired that Ringer’s fluid should receive an extensive trial, and, if possible, in such a way that its value compared to simple salt solution may be estimated.”

I have always seen the normal salt solution used in cases of shock and hemorrhage, and with good results, but the fluid recommended by Eades, and his explanation of the action of the salts of calcium and potassium seemed so rational to me that I employed it with perfect confidence, and I have not been disappointed in the results.

This case teaches us three valuable lessons: 1. That infusion is a life saver in post partal as well as other hemorrhages, and should be used in every case possible where hemorrhage has been severe. 2. Not to place too much reliance on midwives when questioning them concerning conditions that threaten a woman’s life. 3. Curette early and thoroughly as soon as retained placental fragments or membranes is diagnosed.

TOXIC SYMPTOMS FROM SMALL DOSE OF STRYCHNIN, GIVEN WITH NITROGLYCERIN AFTER CHLOROFORM NARCOSIS.

BY FLOYD STEWART, M. D., NEW ORLEANS.

The patient, a young woman of about 26, had been placed under chloroform anesthesia for the operation of scraping the tibia for a syphilitic necrosis. She took the anesthetic well,

and, notwithstanding her anemic condition, her pulse was good throughout the narcosis.

She was under the chloroform about 25 to 30 minutes, and about 1½ ounce of chloroform was used. About five minutes after the anesthetic was stopped, her pulse became weaker, smaller, slower, and was easily compressible. Her breathing was good, however, but it was thought best to give the hypodermic, in order to bring the patient out of the narcosis as soon as possible. A hypodermic injection in the right forearm was given, consisting of a solution of $\frac{1}{10}$ of a grain of strychnin and $\frac{1}{75}$ of a grain of nitroglycerin.

Very soon after the injection was given the patient became quite restless, and rolled about on the bed, now and then moaning and whimpering. Ordinarily nervous and excitable, this was attributed to her customary irritability, especially as friends in the room with her stated that, on a previous occasion, she had acted similarly after chloroform administration.

The restlessness increased until it became necessary to hold her down. It was not until her exaggerated strength in the hands and wrists, and her pinching with these, at the same time shaking her head to and fro, that the occasion of the symptoms was suspected.

It became necessary to chloroform her two or three times to keep her quiet. Altogether the acute symptoms of strychnin poisoning lasted about six hours. In this time there were three distinct opisthotonic spasms and at least four of these convulsions of lesser degree.

The restlessness and the anxiety of impending death were marked with the beginning of each exacerbation, and the patient complained almost constantly of her heart and limbs, of cramps and pains. At no time was there any evidence or tendency to lockjaw, from which a favorable prognosis was made as to the result. Bromidia produced but little effect, so chloral hydrate (gr. 5) and sodium bromide (gr. x) were given, and repeated in ten minutes, then ordered every half hour.

The convulsions, gradually growing less severe, lasted from about 10:30 until near 4 in the afternoon.

She was quite irritable for the rest of the day and night until late, when she fell asleep, waking the next day none the worse for the experience.

The case is interesting from several points of observation; any case of strychnin poisoning is interesting, particularly where it is accidental. In this case there was a peculiar susceptibility, which provoked alarming symptoms, notwithstanding the nitroglycerin which should have acted as a physiologic antagonistic. The small dose, the rapid action, the repeated convulsions, lasting for hours in their successive appearance, all coming after chloroform anesthesia, where a special resistance to the poison should have obtained, make the case worthy of report.

Special Articles on Yellow Fever.

DISCUSSION OF THE ETIOLOGY AND PATHOLOGY OF YELLOW FEVER.*

BY DR. R. MATAS, PROFESSOR OF SURGERY, MEDICAL DEPARTMENT TULANE
UNIVERSITY OF LOUISIANA, ETC.

GENTLEMEN—When our esteemed President and the Chairman of the Committee on Scientific Essays honored me with an invitation to open the discussion on the Etiology and Pathology of Yellow Fever, last Tuesday, I hoped that my part in the proceedings would be limited to the introduction of one who could speak to you with the exceptional authority vested in the original investigator, who, in addition to a long clinical experience, was conversant as an expert with most recent accomplishments of the laboratory. I had hoped that the committee would have been able to profit by the deplorable events which have brought Dr. John Guiteras, Professor of Pathology in the University of Pennsylvania, to Ocean Springs, by asking him to be our guest this evening that we might benefit by the result of his large experience and original labors in this field of study; but unfortunately for us, his engagements in the infected area and the pressure of other official appointments that compel his early departure from his present post have not permitted his acceptance of the invitation tendered in behalf of this society. We will, therefore, be compelled to forego the pleasure that we had so keenly anticipated.

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* Prepared by request of the Committee on Scientific Essays, and read before the Orleans Parish Medical Society, Saturday, September 11, 1897.

The unfortunate circumstances that have called for the present gathering and have revived so much interest and attention upon an old enemy—whose existence the present generation had well nigh forgotten, or at least only remembered with indifference—evokes memories that bring us back to a similar occasion in the summer of 1878, when this identical organization called for a general meeting of the profession of this city, with the view of eliciting the opinions of the leading men in the profession of that memorable period, as to the most effective means of stifling the pestilence which confronted our people—a visitation which I most fervently pray will not find its parallel in the present outbreak.

It was in June, 1878, over nineteen years ago, and the assembly took place in the old domicile of this society, then established in the building of the Medical Department of the University of Louisiana, at the corner of Common and Baronne streets. It was a large gathering, and the hall was crowded with the representatives of the profession, who attended *en masse*. There were also many undergraduates, and I among them, who came to listen with eagerness to the speeches of the masters. Several of these students and others who were then in the dawn of their professional life, I am now glad to see here to-day, not only as hosts, but as pillars of conspicuous strength in our medical temple. As the occasion is pictured in my mind, I recall the earnestness and eloquence with which the grave problems presented for discussion were debated, and I can not but revert with sadness to the group of honored and venerable faces that have since been effaced, and to the voices then so vibrant in debate that are now hushed forever.

It is in just such crises as this that we are apt to look around for our old and trusted friends, and that we feel their absence most intensely as we realize that they never will again meet us at the old trysting place. The wisdom born of long experience, constant study and intelligent observation, is, under these circumstances, at its highest premium, to guide and organize the willing and enthusiastic but inexperienced forces of the younger generation. What a splendid array of talent was gathered on that occasion! There was first and foremost the Nestor of the profession in those days, that venerable, wise and prudent counsellor, Dr. John P. Davidson, whose portrait now graces these

walls. His prodigious memory could recite to the minutest circumstance every fact of interest connected with the epidemics of yellow fever that had prevailed in this city and in the South since 1837. And there was Dr. Samuel Meredith Bemiss, who adorned the chair of Practice in the University, and whose keen, clear and almost infallible clinical sense made him a marvel in unraveling the problems and diagnosis and prognosis. To those of us who as internes of the Charity Hospital were destined to receive his ministrations when the grim pestilence had stalked into its portals, his cheerful words and the encouragement of his presence will ever be remembered as an experience of ineffable gratitude. And then there were such stalwarts as Richardson and Logan, Holliday and the elder Faget, who, I need not remind you, was the first to discover the divergence of the pulse and temperature in yellow fever, which is now so well known as Faget's law. And there was the late and profoundly learned Dr. Joseph Jones, whose monumental works on yellow fever are indispensable to all students of the subject; and the indefatigable microscopist and pathologist of the Charity Hospital, Dr. H. D. Schmidt, whose studies in the gross and minute anatomy of yellow fever are to this day universally acknowledged as the most complete contributions that have appeared on the subject. And Crawcour, who was learned to his finger tips, and could entertain us at all times with the most recent therapeutic experiences. And others, again, like Alfred Holt, Stille, Turpin, Austin, Hale, White, Moritz Schuppert, whose experience in fighting yellow fever was not measured by one, but by a dozen epidemics; and others also, who, though not present at that meeting, and who, unfortunately, have also departed for the Great Unknown—recognized leaders who moulded public and professional opinion, and were implicitly trusted as guardians of the public weal—such men as J. Dickson Bruns, Warren Brickell, Samuel Choppin, and still others whose names I can not recall at this moment. But while thus evoking the memories of a past so full of interest and greatness, and while bowing in reverence and admiration to the distinguished dead, I am gratefully conscious of the fact that the light shed by many of the stars of the professional firmament in that long night of terror and anxiety, has not been extinguished. There are many veterans still among us who were witnesses to that fearful

struggle that cost our devoted people over 4600 lives, and some of these are now recognized as Fellows whom we rejoice to welcome and honor in our councils. Theirs is the double privilege of being experienced in the traditions of the past and of living to witness the prodigious achievements of the present, now so full of hope and promise for the future. It is neither necessary nor in harmony with this occasion that I should further refer to those whose labors in this field have made them conspicuous in our midst and to whom we must look for counsel in occasions like this.

But I can not refrain from making an allusion that the present crisis amply justifies. This is related to the fact that since 1879 the germ of yellow fever has never taken root in the city of New Orleans, and this simply because it was never allowed to reach our levees. Not only has the notion that yellow fever was an endemic of our soil been forever exploded by the immunity we have enjoyed in the past eighteen years, but the evidence furnished by the present outbreak at Ocean Springs is a demonstration in itself of the soundness of the sanitary principles applied at the mouth of the Mississippi river by our sanitary authorities for the exclusion of foreign pestilence since 1883.

I have always remembered the pregnant warning uttered long ago by the distinguished Griessinger, to the effect that "a series of years often pass during which yellow fever is scarcely observable in the very places it especially frequents; and this, though there may be no difference in the going and coming of unacclimated strangers. Then there is rejoicing over the presumed disappearance and destruction of the disease, and a triumph of sanitary police over it, is claimed." But the experience of New Orleans since 1879, with its total immunity and continuously increasing prosperity, tells us that this is no ephemeral or fictitious triumph, and that the protection that we have enjoyed has not been due to fortuitous circumstances and accidentally favorable conditions, but that it is entirely the result of the efficiency of the preventive measures employed. Therefore, if the modern generation of medical men in this city has been deprived of the opportunity of acquiring a *de visu* experience with the dread *typhus icteroides*, and has not been granted the doubtful honor of an introduction to "Yellow Jack," it is due to the system of maritime sanitation established by the Louisi-

ana State Board of Health at the mouth of the Mississippi; and I mean by this more distinctly the "Holt system" of maritime sanitation. As I mention the name of our honored Fellow, Joseph Holt, I feel that you will all agree with me that at no time is the praise of his splendid work more worthy of repetition than at this moment, when, in the very disaster that threatens us, we are compelled to recognize the triumph of his principles and methods.

After the lengthy and digressive introduction into which I have been drawn by the suggestions of the hour I will hasten to the assault of the difficult and perplexing problems offered by the etiology and pathology of yellow fever. In selecting these subjects for discussion and placing them first in the programme for the evening's discussion, I feel that the Committee on Scientific Essays has given precedence to these phases of the yellow fever question, not simply because they *logically* deserve prime consideration, but because the committee realizes that in the most recent investigations into the pathogeny of this disease, modern bacteriology holds within its mighty grasp the key that will forever bar the doors to all future pestilence. My aim to-night will therefore be limited to the latest contributions on the cause of yellow fever, and will be relieved of all those discussions that relate to the history, the epidemiology and other *circumfusa* that constitute the bulk of the vast and inexhaustible literature of this disease.

* * * * *

I remember very distinctly that in 1877, 1878, 1879 and 1880, when I sat as a student on the benches of our medical department (of the University of Louisiana), the lamented Bemiss taught us—as my friend Parham and others here present will remember—that yellow fever was distinctly a microbial disease, and his manner of stating this etiology of yellow fever and the reasons for accepting it from simple *a priori* reasoning was so lucid and impressive that I believe it could not be better stated to-day. His teaching on this subject, which has been preserved in his most interesting contribution on yellow fever in Pepper's System of Medicine, Vol. 1 (1885), reproduces his presentation of the subject as we were familiar with it in his lectures. In my notes taken after the epidemic of 1878, more fully stated in the article referred to, which appeared in 1885, I find that he

said: "The study of the yellow fever poison after the *objective* method (microscopic, bacteriologic, etc.), has hitherto been unproductive of definite results. But when we turn to a *subjective* method of investigating that toxic agent which causes yellow fever, it is found to possess sufficiently well-marked characteristics to justify practically valuable conclusions." Some of these characteristics or modes of behavior merit notice.

"1. The human system is a field of reproduction and multiplication of the yellow fever poison, and this is sufficiently established by two facts:

"(a) A person in the incubation stage of yellow fever intoxication may be divested of all fomites and yet originate other cases after a developed attack.

"(b) The infection is intensified by the aggregation of the sick.

"These propositions are indisputably true.

"2. The poison or infection undergoes some change after leaving the human system.

"This appears to be susceptible of proof because communication from person to person is not a common event. When this does apparently occur there is often very strong reason for belief that the contagion was resident in some fomites connected with the patient's bed or clothing.

"3. There are no sustained observations which prove that the yellow fever poison is ever created *de novo*.

"The autochthonous birthplace of the poison is unknown. The suggestion that yellow fever may have been one of the causes of death during the plague of Athens can not be authoritatively denied. [This is not at all likely to be true, and, furthermore, the most recent investigations by learned Mexican and Spanish scholars prove that according to Maya manuscripts, a fatal epidemic disease characterized by black vomit and other characteristics of yellow fever ravaged Yucatan and other regions of the Gulf Coast long before invasion of the Spaniards. Thus the American origin of yellow fever, which has been discussed since the days of Humboldt, is fully sustained. See article of Dr. Carlos Finlay in the *Cronica-Medico-Quirurgica* of Havana, May 15, 1897, and *Revista de Ciencias Medicas* of Barcelona, August 10, 1897.—R. M.]

"4. Some of those conditions and circumstances which favor or retard the maturation of the yellow fever poison outside of the human body are quite well understood. Warm, damp weather

is most prominent among the climatic conditions which are favorable to the growth of yellow fever epidemics.

“5. A freezing temperature ordinarily destroys the contagion of yellow fever; a high degree of artificial heat produces a similar result. It is highly probable that certain chemical results would also effect its destruction if brought in contact with it.

“6. If yellow fever fomites are hermetically inclosed in situations protected from cold or other agents which are destructive to their infection, vitality may be preserved for an undetermined length of time, and its toxic qualities again made manifest when unacclimated persons (*i. e.*, those who have never had the disease) are exposed to it.

“7. Yellow fever poison possesses ponderability. This characteristic is so distinctly marked that it has been frequently termed a ‘grovelling, low-lying’ poison.

“8. It is incapable of being air borne through any great distance, at least without being deprived of its toxic effect.

“9. It is transportable in fomites through great distances, either on sea or land, but as often as its toxic effects are manifested after these transportations they are so uniform as to be promptly recognizable. A great number of different materials in common use may act as carriers or fomites, such as loose wool, cotton, hair, textile fabrics, ship ballast and merchandise of various descriptions.

“10. The preceding facts explain how the disease is spread and why it is that it follows the lines of travel and commerce and thus primarily attacks the seaports and towns situated on navigable streams and then follows the railroads to the inland towns.

“11. These qualities of the yellow fever infection taken collectively, and especially its faculty of reproduction (which only living organisms possess), furnish almost conclusive evidence that yellow fever is a germ disease produced by a specific *contagium vivum*.”

Professor Bemiss shared in the general belief still sustained by the latest investigations, that “in the dissemination of yellow fever, atmospheric air is the usual medium through which the infection is received in the human system.” That the poison gains its entrance chiefly through the respiratory passages is sustained by almost all the evidence that has accumulated to this day. Dr. Bemiss would very effectively

impress this upon his classes by the following striking illustration, which I will quote, as it is pertinent to this occasion. The facts were furnished by Dr. Shannon, of Ocean Springs, Miss., in a letter to Dr. Bemiss :

“ On the 14th of October, 1883, Major J. B. D. died of yellow fever in Ocean Springs. I moved the family at once to a healthy locality, where you saw Miss B., not allowing them to take any article from the room where the husband and father had died. The children applied to me for a lock of their father’s hair, which I refused. But the older daughter, now dead, prevailed upon the nurse to give it to her. She placed it in an old envelope that had been torn open at the end and carefully folded the torn end down, thus practically sealing it, and laid it away among other old letters. On Sunday, the 4th of November, at 12:30 P. M., she brought this envelope out upon the gallery and opened it for the first time to examine the lock of hair and show it to her aunt, Miss S., who was visiting her, and upon inhaling the concentrated poison confined in the envelope and emanating from the hair, exclaimed: “ Oh, what a peculiar smell.” She then handed the envelope to her aunt, Miss S., who, unconscious of danger, also inhaled “ the messenger of death ” with a similar exclamation, when Mrs. B., who was standing near, reached out her hand for the envelope, but was prevented from getting it by the entreaties of a fretful child to be taken up in arms. This gave time for sufficient reflection, and she admonished the young ladies of the possible danger. The envelope was then carefully folded, and with its fatal contents replaced in the drawer where it had been since the 14th of October. This drawer had been almost daily opened. On the following Saturday night, November 10, at 9 P. M., *Miss S.* was taken sick with a chill, and *Miss B.* at about 2 A. M., some five hours later, the period of incubation being less than seven days in both cases. No other person handled the fatal envelope or in any way came in contact with it, and there is, after the most careful inquiry, no suspicions of any other source of infection in these two cases. *Miss S.* died November 14; *Miss B.* on November 16.” This tragic event, that actually occurred in the very place which has been the starting point of our present troubles, may appear somewhat dramatic, but it is vouched for in every detail by Dr. Shannon, and Dr. Bemiss firmly believed it.

Dr. Bemiss also taught that yellow fever is a disease of singular

local attachments. "It often becomes epidemic in one section of the city, and sometimes a very small section of it, while it fails to present itself at all in other sections of the same city, and in these localizations it exhibits a remarkable indifference to topographical and social surroundings" (Report of the Board of Experts appointed to investigate the epidemic of 1878).

* * * * *

THE ESSENTIAL CAUSE OF YELLOW FEVER.—The profound impression produced by the epidemic of 1878 naturally led to many discussions as to the origin and cause of yellow fever, and the theories that were then entertained by many, even by some of the most competent in the profession, would now appear to us as being idle and absurd.

The "telluric" or "miasmatic," the "ship origin," the "fecal" and the "glandular" theories of yellow fever which are more or less dependent on the supposition that the cause of the disease could originate spontaneously or *de novo* in certain places and in the human organism were still currently believed in, though never to the preponderating extent shown in the previous great epidemic of 1867.

So eminent a pathologist and observer as Dr. H. D. Schmidt, to whom so many of us owe our first notions of pathology and biology, was a pronounced advocate of what has been called the glandular theory of this and other infectious diseases. This theory, which at that time claimed B. W. Richardson, of London, as its leading exponent, was a sort of forerunner of the present much more clearly understood doctrine of auto-intoxication, and its foundation rested upon the belief that the organism sometimes poisoned itself by the "perverted" secretion of the glands and other humors, which formed toxic substances instead of their normal secretions. The germ doctrine, which had begun to be ventilated here in the epidemic of 1867, had taken a firm hold of the professional mind in 1878. The beautiful studies of Pasteur on spontaneous generation and fermentation, and of Tyndall on atmospheric germs, and Lister's exposition of the doctrine of antisepsis in 1873, were then still new and fresh, and not merely historical as they are to the present generation. In the university, I have already stated how Bemiss impressed us with his belief in the *contagium vivum* theory of yellow fever, and in this he was valiantly supported by Professor Chaillé in his lectures on pathol-

ogy; by Professor Elliott, who had just made his brilliant debut as professor of clinical medicine in our midst, and by Professor Jones in his clinical teaching. That our sanitary authorities were most thoroughly convinced of the microbic origin of yellow fever is most eloquently attested by the desperate but ineffectual efforts made by the president of the Board of Health, Dr. S. Choppin, to stamp out this disease by the profuse irrigation of the streets of this city with carbolic acid.

The dominant theory was, therefore, the germ theory of the disease. All that was lacking was a tangible demonstration of the existence of the germ itself. It was not long before many anxious explorers began to see the coveted prize.

The first announcement of the discovery of a yellow fever germ was made in 1878 by Dr. Joseph Richardson, of Philadelphia. His alleged discovery was based upon the absolutely insufficient basis furnished by the *post-mortem* examination of a few specimens, and upon this slender foundation he labeled the new microbe the *bacillus sanguinis febris flavæ*.

Inspired by the disastrous experience of 1878 and realizing the necessity of a systematic and careful study of yellow fever in its most prolific nursery—Havana—the United States National Board of Health determined to send a commission of experts to Cuba in the summer of 1879, and to this end selected Dr. Stanford E. Chaillé, chairman; Dr. Geo. M. Sternberg (bacteriologist), Dr. John Guiteras (pathologist and histologist), and the late Col. Hardee, of Louisiana, as sanitary engineer. It was my good fortune also to be selected while still an undergraduate and an interne of the Charity Hospital, to accompany the commission as its clerk and interpreter. I shall always remember the three months spent in Cuba in the company of these distinguished gentlemen and indefatigable workers as one of the most important events in my life, as experience and knowledge gathered in the hospitals of Havana, which were crowded with yellow fever cases, and in the laboratory of the commission, were of immeasurable benefit to me in my subsequent experience with this disease. It would be impossible and out of place on this occasion to give an account of the results obtained by the labors of the commission. Suffice it to say that while the researches into the essential cause of the disease were only negative, owing in a great measure to the then rudimentary condition of bacteriological methods, as only the liquid

culture fluids were known and none of the various staining processes for studying bacteria in the tissues had been discovered, still, the indefatigable industry of Dr. Sternberg cleared many points in the histology of the blood which have been of the greatest value in his own subsequent work, as well as in that of other investigators. As to the study of the collateral questions and especially the sanitary condition of Cuba which determine its endemicity in that island, nothing more satisfactory, thorough or complete has ever been given to the world than the data collated by the chairman, the distinguished dean of our medical department, Dr. Chaillé. The report of the commission, which is contained in appendix B of the second annual report of the National Board of Health, issued in January, 1881, is a perfect treasury of facts of the greatest importance to the sanitarian and epidemiologist. This document will prove absolutely indispensable to our government, should it ever be called upon to extirpate this fearful canker from the bosom of the "Pearl of the Antilles." I should mention incidentally that among one of the most notable results of this investigation was the fact, brought to light for the first time by Dr. Chaillé, that the immunity enjoyed by native Cubans, and in fact by all natives of endemic *foei* of yellow fever, was not due to the influence of climate, but solely the protection given by a previous attack experienced in early childhood. This explanation of native immunity, which was at first hotly contested in Cuba and elsewhere, is now definitely admitted everywhere, in consequence of the convincing evidence first furnished by Dr. Chaillé, and since by Dr. Guiteras while studying the same question in Key West and Matanzas.

Continuing with the record of the claims of discovery of the yellow fever germ, we find that after the negative researches of Woodward, Sternberg and Schmidt in 1879 and 1880, no discovery was definitely announced until 1881, when Charrin and Capitan believed that they had found a specific micrococcus in specimens of blood brought to Paris by Morand, from Senegal. In 1883, Dr. Lacerda, of Rio de Janeiro, having discovered what he believed to be the specific micro-organisms in the liver and kidneys of yellow fever patients, sent some material to Paris to Dr. Babes. For a time Babes believed that they were the veritable germs of yellow fever, but he subsequently renounced this claim.

In 1884–85 Dr. Carmona y Valle, of Mexico, in his memoir “Leçons sur l'étiologie et la prophylaxie de la fièvre jaune,” described his *peronospora lutea*, a species of mucor, as the specific cause. In 1885, Domingos Freire, of Rio de Janeiro, published his principal work, *La Doctrine Microbienne de la Fièvre Jaune*, in which he maintained the specificity of his *cryptococcus xanthogenicus*, and described his prophylactic inoculations and their results. This widely advertised announcement created considerable stir in the professional world and prompted this government to detail Dr. Sternberg on a special mission of investigation.

The results of this notable inquiry are all embodied in the comprehensive and admirable report on the etiology and prevention of yellow fever published by the United States Marine Hospital Service in 1890, in which Dr. Sternberg completely refutes all the claims maintained by Freire and permanently disposes of the prophylactic value of his alleged vaccine.

The same fate awaited the claims in favor of the *micrococcus tetragenus febris flavæ* or *versatilis* (Sternberg) described by Carlos Finlay and Delgado, of Havana, in 1887–88, and, in a similar manner, the bacillus which Dr. Paul Gibier found in the intestinal canal in 1887 while studying the disease in Havana. In the meantime Dr. Sternberg had been tireless in his investigations; he availed himself of every opportunity to fathom the cause of the disease. Starting with his first experience in Havana in 1879, he visited Rio and Vera Cruz in 1887, where he promptly eliminated the claims of Freire and Carmona; in 1888 he studied the disease again at Decatur, Ala., where the disease was epidemic; finally, in 1888–89 he again visited Havana and applied all the resources of the improved bacteriological technique that he, above all others, could command. At the conclusion of his labors, which are all summarized in the complete report issued by the United States Marine Hospital service in 1890, Dr. Sternberg was forced to the conclusion that the specific agent in yellow fever had not been demonstrated. Nevertheless he emphasized the point that “among the facultative anaerobics is one—my bacillus x—which has been isolated by the culture method in a considerable number of cases, and may have been present in all. This bacillus has not been encountered in the comparative experiments made. It is very pathogenic for rabbits when injected into the cavity of the abdomen. It is possible

that this bacillus is concerned in the etiology of yellow fever, etc." Here Dr. Sternberg rested. His laborious work had only succeeded in conclusively demonstrating that all the alleged discoveries previously made were fictitious, and the riddle of yellow fever remained as practically unsolved as ever. In this critical work, which swept away so many accumulations of bacteriological rubbish, Sternberg's conclusions were most ably confirmed and supported by the conscientious researches of Heineman of Vera Cruz, who, in a valuable paper contributed to Virchow's Archives, 1888—also effectually disposed of the claims of Freire, Carmona, Gibier and their followers.

It thus became evident that the germ of yellow fever was no common organism. If not imaginary, it certainly was endowed with the most elusive properties. It could surely be said of this microbe that the frequency with which it was seen was inversely proportionate to the skill and experience of the observer. There were reasons for discouragement, but nevertheless it was evident in Sternberg's interesting study of his bacillus that there was yet hope that with more time, opportunity and improved methods the cunning culprit would be at last tracked and captured.

Such was the state of the professional mind when suddenly, after a silence of seven years, the bacteriological horizon was illuminated by the almost simultaneous announcement of the discovery of the long-sought germ by Professor Guiseppe Sanarelli, the director of the Institute of Hygiene of Montevideo, Uruguay (*Annales de l'Institut Pasteur*, June 25, 1897; *British Medical Journal*, July 3, 1897), and by Dr. W. Havelberg, a bacteriologist of Rio Janeiro (*Berl. Klin. Woch.*, 1897, xxxiv, 493, 526, 542, 564).

These announcements are regarded as of great importance, for in both instances they are made by men of acknowledged reputation and ability in the latest methods of bacteriological research. According to the Roman correspondent of the *British Medical Journal* (February 23, 1897), Sanarelli is regarded as one of the most accomplished bacteriologists of the profession. "He is thirty-five years of age. His opportunities have been exceptionally fine. A graduate of Sienna, he continued his studies in experimental hygiene under Celli at Rome, Roux in Paris, and Behring in Berlin. In 1893 he received the appoint-

ment as Director of the Institute of Hygiene of Montevideo. During the summer of 1896 he went to the Island of Flores, where yellow fever was severely prevalent; there he performed a number of necropsies, and was himself smitten with the disease. As soon as he recovered he resumed his investigations at Rio Janeiro, where the disease was raging. Here at the end of two months of assiduous labor, his effort was rewarded. For some time he was loath to give publicity to the fact that the specific microbe had been discovered. But at length he became so well convinced that he had in hand the yellow fever microbe that he commenced in August the preparation of his serum cultures. He encountered many obstacles, but these were finally overcome and he was able to state that "the microbe of yellow fever now splendidly presents itself, and is the strangest of all the microbes that are known."

In order that he might control the knowledge of his discovery, he vaccinated over two thousand various animals with his own hands. The results of the treatment were so reassuring that in October, 1896, he decided to announce confidentially to the President of the Republic of Uruguay the remarkable results that had crowned his studies in the origin and cure of yellow fever. The evidence that he has furnished has inspired so much confidence that the Uruguayan government has conferred on him honorary citizenship, and voted him \$10,000, with an expression of regret that the depleted treasury of that Republic will not permit their giving more.

On the other hand, the fact that Dr. Havelberg's report "was first published in the *Annales de l'Institut Pasteur*, and that some of his work was done at the suggestion of M. Roux, would seem to indicate that he also has strong backing, and that we are likely to have a lively scientific tilt over the affair."

The most regrettable feature of the situation is that the respective microbes discovered by these men possess few, if any, traits in common, and are found in a different manner and in different parts of the body, so that there is in consequence decided antagonism between the respective claims. As stated by the editor of the *Medico-Surgical Bulletin* (August 25, 1897): "There is no doubt that each investigator has found a different bacterium, but it is quite certain that both microbes can not be those of yellow fever, and it may ultimately turn out that neither contestant has

secured the coveted organism." It is a very suggestive fact, however, that Dr. Sternberg in his most recent paper, entitled "Bacillus Icteroides—Sanarelli (bacillus x, Sternberg)," which appeared last week in the September issue of the *American Journal of the Medical Sciences*, endeavors to prove that the micro-organism discovered by Sanarelli and his own bacillus are identical. The points of resemblance are striking. Dr. Sternberg says: "The evidence thus far presented is strikingly in favor of the view that the bacillus of Sanarelli is identical with my bacillus, and unless this identity is conceded it will be difficult to admit that the bacillus of Sanarelli is the veritable yellow fever germ, for I made numerous cultures from yellow fever cadavers in Havana, and by the most approved methods, studying carefully all of the bacteria which I was able to obtain in these cultures. If the bacillus icteroides of Sanarelli was present in the blood or tissue of yellow fever patients in Havana, I could not have failed to find it, as it grows readily in the culture-media employed in my investigations; but unless it is identical with my bacillus, * * * it was not present in the blood and tissues of the yellow fever cadavers examined by me during my extended researches in Havana." Apart from this conditional endorsement thus given by Sternberg to Sanarelli's research, the intrinsic evidence of a mastery of modern bacteriological methods, as well as the experimental evidence furnished by the South American investigator, impress me with the belief that it is of the highest order of merit. In reference to Havelberg's representations, it is significant that the Uruguayan authorities, who must be familiar with the claims of the Brazilian bacteriologist, have decided so unequivocally and confidently in favor of Sanarelli. At any rate, Dr. Sternberg promises to resume his researches, and as it is possible that he will be able to obtain material for his observations and experiments in our very midst, we may therefore expect an early decision as to the respective merits of the two contestants.

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According to Sanarelli the isolation of the specific microbe of yellow fever is only possible in 58 per cent. of the cases, and in some rare cases may be effected during life. The reasons why in every case of yellow fever one can not isolate the specific agent are easy to understand. In the first place, at the beginning of the disease the bacillus icteroides multiplies very little

in the human organism, a small quantity of the toxin, as we shall see later, being quite sufficient to develop in man the very grave picture of the complete disease. In the second place, the toxin either by itself or indirectly by means of the profound lesions that it determines, above all in the digestive mucosa and in the liver, facilitates, in an exceptional way, secondary infections of every kind. Such special infections may sometimes assume the type of true and special septicemias, with colon bacilli, streptococci, staphylococci, etc., capable of killing the patient by themselves alone. At other times they occur mixed, so that in the last stages of life, they may transform the individual into a true culture of almost all the intestinal microbial species.

The bacillus at first sight presents nothing morphologically characteristic. It is a little bacillus with rounded extremities, for the most part united in pairs, in cultures and in small groups in the tissues, from two to four thousandths of a millimeter in length, and, as a rule, two or three times longer than broad. It is very polymorphous. A search for it in the tissues does not give good results, excepting in the cases in which the death of a patient occurs without secondary septicemias. Even in the cases which on bacteriological examination give the purest results, it is not easy to see it in the section of the tissues owing to the number being sometimes extremely small. Yet by employing suitable methods, one can find it in the organs, usually united in little groups, *always situated* in the *small capillaries* of the liver, kidneys, stomach, etc. The best method for demonstrating not only its presence, but also the special tendency it has to be localized in small groups in the blood capillaries, is to place a small fragment of liver, obtained from the body whilst fresh, in the incubator at 37 deg. C. for twelve hours; this favors the multiplication of the specific microbes. Sanarelli's germ is stained readily by basic aniline dyes, but is decolorized by Gram's method. When stained by suitable media it is found to possess four to eight lateral cilia. It grows readily in all ordinary media above 20 deg. C., the optimum temperature being 37 deg. C. It does not liquefy gelatine, neither does it cause precipitation in meat broth, nor does it curdle milk. The most important diagnostic feature, however, is supplied by the colonies on the surface of agar when incubated for twelve hours at 37 deg. C., and then allowed to

develop further at room temperature. The colonies, when incubated, appear merely as semi-transparent round disks, but during subsequent growth, at the room temperature, a thick opaque white border forms around each colony, giving a very characteristic appearance resembling a drop of sealing wax. As their character can fortunately be obtained in twenty-four hours, it serves to establish, in the most rapid and certain manner, the bacteriological diagnosis of the bacillus icteroides. This statement is alone, if confirmed, of the greatest importance from the sanitary point of view. Taken with the possibility of obtaining a pathognomonic serum-reaction with typical cultures, just as is now done with Widal's test in typhoid fever, we at once grasp its full and enormous significance in dealing with the early and doubtful stages of yellow fever epidemics. Should this test be available we would not be compelled to wait for post mortems to clear out a diagnosis, and the long hesitation and unseemly discussions that characterize medical consultations among official experts in non-typical cases would be promptly disposed of; neither would there be any likelihood of an entire country being infected while waiting for the percentage of mortality to decide as to whether the disease was yellow fever, dengue or something else.

Continuing with the biological characteristics of Sanarelli's germ we will state that it is a facultative aerobe (*i. e.*, normally growing where there is free oxygen, but can under proper conditions be developed without it); it resists drying for a long time, but is rapidly killed by moist heat at 60 deg. C. A curious point in its biology is the favoring influence which moulds exert on its growth. Sanarelli has found that if various moulds are allowed to develop on a gelatine plate, sown with the bacillus icteroides, the colonies of the latter grow more luxuriantly in it, and may be restricted to the vicinity of the moulds, being apparently stimulated by their diffusible products. He considers that this fact may explain how the germs of yellow fever persist and appear to flourish in the holds of certain ships—the conditions of warmth, moisture and deficient aeration favoring the growth of moulds and thus indirectly that of the bacillus icteroides.

But the more important and convincing evidence presented by Sanarelli in favor of the specificity of his bacillus icteroides lies in the experimental evidence. He has not only studied the patho-

genic effects of pure cultures of this germ, but after isolating its toxins, he has been able to reproduce the typical lesions of yellow fever in the most characteristic manner. Here, contrary to what was formerly believed, he has found that all mammals with which he has experimented are more or less sensitive to the pathogenic action of the icteroid bacillus. If this is true, then the bacillus of yellow fever behaves toward the lower animals very much like that of other germs which, while inoculable in the lower animals, are never epizootic among them. Diphtheria, for instance, is not a common disease of the horse, nevertheless the animal is very sensitive to the Klebs-Loeffler bacillus when cultures of this germ are inoculated into its blood, and its blood serum furnishes us its now precious diphtheria antitoxin. It is evident that this must depend entirely upon the mode of transmission or the means of defence and resistance, which are probably more efficient in the lower animals than in man. Nevertheless, while it is quite certain that neither mice, guinea-pigs, rabbits, dogs, goats, sheep, horses and monkeys are never known to be affected in epidemics of yellow fever, Sanarelli has succeeded in reproducing the phenomena of this disease by the intravenous injection of his cultures. After referring to his experiments on other animals, he says: "But the animal that lends itself better than any other to exhibit the strict anatomical and symptomatological analogies of experimental yellow fever with human yellow fever is the dog. Injection must be effected by the veins, and the diseased process which results is almost immediately manifested with such violent symptoms and such complex lesions as to recall the clinical and anatomical picture of human yellow fever. The most prominent symptoms in the experimental yellow fever of the dog is vomiting, which begins directly after the penetration of the virus into the blood and continues for a long time, as if the animal were under the influence of an energetic emetic (such as apomorphia). After the vomiting, hemorrhages appear, the urine is scanty and albuminous, or there is suppression, which precedes death a little. Once I observed a grave jaundice. At the necropsy highly interesting lesions are met with, inasmuch as they are almost identical with those observed in man. Above all, the profound steatosis of the liver strikes the attention. The hepatic cells, even when

examined fresh by means of a little osmic acid, appear completely degenerated into fat, like those of human subjects. The icteroid toxin is in reality a true specific poison of the hepatic cells, like phosphorus and arsenic. *A complete steatosis of the organ can be produced by injecting directly into the liver, through the abdominal walls, a fresh culture of the specific bacillus.* Besides the liver, the renal tissue, which is the seat of acute parenchymatous nephritis, and which must be considered as the immediate cause of anuria and the uremic intoxication, presents a grave fatty degeneration. In fact, the blood of the dogs which die of experimental yellow fever contains a quantity of urea equal to what is met with in animals completely nephrotomized, as in the severest cases of human yellow fever. The whole digestive apparatus is the seat of the gravest hemorrhagic gastro-enteritis that can be imagined, comparable solely to that provoked by poisoning with cyanide of potassium. This hematogenous gastro-enteritis is then perfectly analogous to, perhaps more severe than, that which is observed in man. In the majority of cases the bacillus icteroides is found in the blood and organs in variable quantities in a state of absolute purity. Sometimes, however, I found it associated with the colon bacillus and streptococcus, as in man."

From this and other comparative experimental evidence, Sanarelli contends that yellow fever infection, as much in man as in the lower animals, represents a disease with a cyclical course. "During the early period of the attack the specific microbe is found in the organs in very small numbers, and it is only at the end of the cycle, about the seventh or eighth day, that it multiplies rapidly and invades almost suddenly the whole organism, generally accompanied by other microbes, probably coming from the intestines. Only in cases which terminate in this manner—that is to say, which regularly complete the disease cycle—can the specific microbe, diffused in the blood organs, be found with comparative facility. When an intercurrent septicemia, or a precocious uremic poisoning, puts an early end to this disease cycle, it is extremely difficult, if not altogether impossible, to isolate the bacillus icteroides."

CAUSES OF DEATH IN YELLOW FEVER.—"The patient suffering from yellow fever is in fact contemporaneously threatened by three imminent dangers, and the bacteriological examination of

the cadaver may approximately place in evidence as the principal causes of death—

“1. It may be due to the specific infection principally, when the bacillus icteroides is found in the cadaver in a certain quantity and in a relative state of purity. This happens only in the cases which run their special disease cycle to the end.

“2. It may be due to septicemias successively established during the course of the disease, when the cadaver presents almost a pure culture of other microbes.

“3. It may also be due in great part to renal insufficiency, when the cadaver is found almost sterile; the percentage of urea in the blood is very high, and death takes place before the malady has reached the end of the evolutionary cycle.

“It is difficult to pronounce during the life of the patient on the prevalence or not of uremic symptoms over the specific, because the most salient symptoms of the yellow fever intoxication are easily confounded with those of renal insufficiency.

“The so-called ‘black vomit’ is due to the action of the gastric acidity on the blood which is extravasated in the stomach in consequence of the grave toxic lesions of its mucosa. The act of vomiting is directly provoked by the specific, emetic action that the toxic products of the bacillus circulating in the blood possess.

“The hemorrhagic symptoms are due above all to the hemorrhage-producing (hemolytic) property possessed by the bacillus icteroides in common with other microbes, and, in the second place, to the profound and rapid fatty degeneration produced in the vessel walls.”

THE SPECIFIC TOXIN.—The small numbers in which the bacillus icteroides is usually found in the human organism, and the violence of the symptoms which are immediately produced in dogs by injections of small cultures into the veins, indicate the existence of a very active specific poison. This poison or toxin is obtained, like that of diphtheria, by simply filtering through porcelain the broth cultures of the bacillus about twenty-four days old. The toxin bears heating to 70 C. almost with impunity, but boiling notably attenuates it. If cultures sterilized with ether are employed, the toxic power is much more active. Sanarelli's account of his experiments with the toxin as obtained from filtered cultures, is most interesting. He has studied its

action by inoculation on guinea-pigs, rabbits, dogs, cats, goats, the ass, horses and man. It has an action little marked and little characteristic in those animals in which reaction to the living virus (cultures) is little specific. Such are small rodents, in whom death is caused only by strong doses of the poison, small quantities, as a rule, only causing a transitory loss of flesh. In dogs the toxins, introduced into the veins, produce the same lesions as the virus—*i. e.* abundant lachrymation, immediate continuous vomiting, great prostration, hemorrhages and the characteristic post-mortem lesions in the liver and kidneys. Bacteriological examinations demonstrate that the action of the simple toxin favors the introduction of other intestinal germs into the organism, the colon bacillus and the streptococci and other mixed infections being found as when the animals perish from the effects of living cultures. The cat is as resistant to the icteroid toxins as it is to its virus. Goats are very sensitive to the toxin influence, but in these animals the hemorrhagic tendencies and nephritic degeneration are the dominant features.

The horse is extraordinarily sensitive even to injections of unusually small quantities of the toxin. This leads us to hope that the susceptibility of this noble animal will be the means of furnishing the much desired antitoxic serum against yellow fever, as we now obtain it for diphtheria. From his experiments Sanarelli concludes that in a general way it may be said that the higher we ascend in the zoological scale the more developed is the sensitiveness of animals toward the potent and strange icteroid poison.

According to these experiments it is also evident that yellow fever is a truly *inoculable* and *contagious* disease. Sanarelli does not fail, however, to notice the contradictory evidence of clinical experience. "In 1866, Dr. Chervin, of Pointe-à-Pitre (Antilles), drank repeatedly large quantities of black vomit without feeling the least disturbance. Some years before, other North American colleagues, Patten, Firth, Cathrall and Parker, did everything possible to inoculate themselves with yellow fever. After having uselessly attempted experiments on animals, they experimented on themselves, inoculating the black vomit at the very moment in which the moribund patient rejected it, placing this matter in their eyes, or in wounds made

in their arms, injecting it more than twenty times in various parts of the body, breathing the effluvia of its evaporation, making pills of it, which they swallowed, inoculating themselves with the saliva or the sweat of the patients—in short, devising every sort of daring means for experimentally transmitting yellow fever. All these experiments were without result, and in the United States during many years it was believed that this terrible disease was non-contagious.” “We are now in a position to explain perfectly,” says Sanarelli, “the cause of such surprising failures. The reason lies in the fact that the bacillus ictericoides does not reside in the stomach, and that if it accidentally reaches it, carried with the hemorrhages, it is certainly found there in *very great dilution* as in the blood. Sanarelli’s experiments on man amount to five. In two individuals subcutaneous injections, and in the other three the endovenous method were used.

He is able to state that the injection of the filtered cultures in relatively small doses reproduced *in man* typical yellow fever accompanied by all the formidable retinue of symptoms of the disease. The fever, congestions, hemorrhages, vomiting, steatosis of the liver, cephalalgia, rachialgia, nephritis, anuria, uremia, icterus, delirium, collapse; in short all the company of symptomatic and anatomical elements which in their combination constitute the individual basis of the diagnosis of yellow fever.

It has lately been reported that a sixth experiment is about to be tried on the human subject. Dr. Antonio Quesada, of Paso de los Toros, a Spanish physician, presented himself some weeks ago at the hygienic institute of Montevideo and offered himself to Dr. Sanarelli as a test subject for experiment. “No amount of persuasion could change his intention, and he declared that if he could not get it done there, he would have it done elsewhere. His wish was finally granted and a special ward assigned, while three Uruguayan and three foreign physicians were appointed to watch over him. They will examine every sign that appears after the injection of the toxin and report on the results. Dr. Quesada is a robust man of 42, and a good subject to experiment upon.”

The editor of the *American Medico-Surgical Bulletin*, of August 25, commenting upon this information parenthetically states: “The anti-vivisectionists usually wind up their arguments

against vivisection and believers in vivisection with the query as to why they do not vivisect themselves instead of poor, innocent and inoffensive animals? This they always seem to think is a knock-down argument that proves conclusively the immoral character of the vivisector's work.

“ Now they are about to have their wish gratified and it is to be hoped that they will be satisfied with the result. The heroism of Dr. Quesada certainly can not be doubted and the spirit that prompts it is surely commendable. He does it solely for the good of his fellow-men.”

This reminds me of a similar experiment tried by Daniel A. Corrion, a young Peruvian medical student, who, in 1885, wishing to test the disputed inoculability of the terrible Verruga or wart-disease of the Andes, insisted upon being inoculated, with the result that in due time he developed the disease and died from its effects. He intended to write his graduation thesis on this disease, and, up to a few moments of the end of his horrible malady, wrote the most accurate and careful observations as to his condition, etc. And he is not the only hero who has willingly sacrificed his life to throw light on the obscure problems of disease for the benefit of his fellows. There are hundreds of others who, were we to search the records of our profession, we would find have not hesitated to substitute their own bodies for the *corpora vili* that the fanatic anti-vivisectionist is ever ready to protect at the peril of human existence.

But to continue with Sanarelli's remarkable bacillus. Having discussed the essential cause or etiology of yellow fever as fully as the limits of the present occasion will allow, I will ask for a few minutes more of your time and indulgence to close with the pathology of this disease as we must understand it in the light of these researches.

“ The dominating theory,” says Sanarelli, “ which represented the digestive canal, especially the stomach, as the crucible or laboratory of the yellow fever poison, solely because the gastrointestinal phenomena were those which more vividly struck the clinician, being eliminated at a blow, it being well demonstrated that all these striking phenomena are due to a specific poison manufactured by a microbe circulating in infinitesimal quantities in the blood, yellow fever immediately enters into the class of diseases which is typified by typhoid fever.”

All the symptomatic phenomena, all the functional alterations, all the anatomical lesions which individualize and give the yellow fever picture its wonderfully striking outlines, are only the consequence of an eminently steatogenic (or fat transforming), emetic, pyrogenic, hemolytic and extraordinarily active toxin, elaborated by a germ which for convenience is called by its discoverer, the bacillus icteroides. It is no doubt in consequence of these effects that yellow fever has been aptly compared to poisoning by the venom of certain serpents. Surely no one will deny, no matter what doubts he may entertain of the identity of Sanarelli's germ with the cause, if he has had any practical acquaintance with yellow fever, that no explanation has ever been offered more satisfactory to our pathological and clinical sense, and that will better account for the train of symptoms that identify this disease—fever, vomiting, hemorrhages, albuminuria, anuria, fatty degenerations of liver, kidneys and heart—than the effects of the toxin so clearly and impressively described by Sanarelli.

Now as to the mechanism of infection. By what avenue does this terrible germ enter into the organism, and where or in what special tissues does it establish its toxin factory? The first of these is a question of the greatest practical importance. We see that it produces its effects most rapidly when injected into the blood by intravenous or subcutaneous injection. But the normal or common way by which it gains entrance in epidemic conditions is not so clearly understood. It is evident that the atrium or gateway of infection must be by either of two ways—the respiratory or the alimentary passages. Sanarelli believes that it may be by both routes, but in accordance with clinical experiment and common observation, he lays stress upon the former route as by far the most frequent of the two. “In countries where yellow fever prevails, evidence sufficiently demonstrative to establish the transmission of the disease by drinking water has not been collected. On the contrary, there exists an inexhaustible series of facts which point strongly to atmospheric transmission. The solitary example, always quoted by authors, in relation to the diminution of yellow fever in Vera Cruz, after that city was furnished with good drinking water, can only have a purely relative value like all affirmations of this kind.”

The remarkable resistance to drying which Sanarelli has demonstrated in the bacillus *icteroides* warrants the assumption that this germ can be conveyed in the air as well as in water. Further, "contagion by the respiratory passages has been demonstrated to be possible by experiments on animals." As to the mechanism of contagion by water, milk or other ingesta, it is difficult to understand it in healthy subjects, as it is now placed beyond a doubt that the epithelium of the digestive passages, when it is intact, does not as a rule, permit the passage of any pathogenic germs. But in tropical countries the liver, especially of foreigners, is usually overtaxed, and it is possible to conceive that, owing to the weakness of this most important barrier against intestinal infection, the germ may gain an entrance into the circulation.

At any rate, the morbid process is now clearly understood once the germ is admitted into the organism. Whether introduced by the nasal chambers, the fauces, tonsils or lungs, or by the alimentary tract, it is carried by the circulation to the capillary system of the liver, spleen, gastro-intestinal canal or kidneys, which are its preferred habitats. Here the germ develops slowly, for, like the most potent microbes, its reproductive capacity is limited; in fact, five to eight days will be needed to form colonies that are so small that it will require the most skilful detective work with the microscope to discover them. While reproducing itself, however, it begins to manufacture its terrible toxin. This toxico-genetic function probably begins from the moment that the germ becomes fixed as a capillary embolus and when colonization begins. Its colonies are fully matured in the laboratory—outside of the tissues—in twelve to twenty-four hours. The dose and toxicity of the poison will no doubt depend upon the size and activity of the colonies. And here the vigor or weakness of the individual defences of the host—phagocytic and humoral, will largely determine the future progress of the parasitic colony. The questions of the relative predisposition and immunity must largely decide whether the attack will be severe or mild. Certainly the effect of the first discharge of the poison into the blood stream is pyrogenic, then follows the emetic action probably on the nerve centres, then simultaneously begins the attack on the great bulwarks of defence—the liver, capillaries of the

alimentary tract, the kidneys, and, lastly, the heart muscle and the blood itself. Then the real danger begins—when these viscera and especially when the liver and kidneys are undergoing fatty change—then a gateway is at once opened for the admission of all the intestinal germs and their toxins into the blood, and by the destruction of the renal epithelium the great outlets by which they are to be carried out are plugged and auto-intoxication is inevitable. In the carnival of destruction that follows, the original parasitic host may itself be destroyed by the swarm of greedy guests that it has blindly admitted to its own banquet.

This account of the pathology of yellow fever may appear somewhat figurative and metaphorical, but it is, nevertheless, that which most clearly explains the phenomena of this remarkable disease.

We will now close by asking ourselves what is the practical outcome of all these researches—what bearing has Sanarelli's discovery to the prophylaxis, diagnosis and treatment of yellow fever, if verified?

1. AS TO PROPHYLAXIS.—It is legitimate to expect that in dealing with so specific and potent a micro-organism as the bacillus icteroides, it is possible, by attenuated culture or by an antitoxic serum, such as is now obtained by immunized horses after subjecting them to experimental diphtheria or tetanus, that a reliable preventive and curative agent will be obtained.

2. AS TO DIAGNOSIS.—That if the cultures obtained from the bacillus icteroides are specifically characteristic, as claimed by Sanarelli, a pathognomonic culture may be obtained in twenty-four hours from suspected cases. Again, if this should be impracticable during life, owing to the paucity of germs in the blood, it is possible that a specific serum reaction, similar to Widal's agglutination test, may be obtained, which will permit of an immediate and infallible diagnosis in the early stages of the disease. The enormous value of such a test to the sanitarian need only be mentioned to be appreciated.

3. AS TO TREATMENT.—Of course the greatest value of Sanarelli's researches lies in the prospect of obtaining a specific anti-toxin which alone can cope with the specific cause in the blood and the tissues. Apart from this, these researches would suggest some important conclusions which affect our present mode of treatment.

(a) That no hope of aborting or arresting the disease can be entertained by resorting to germicidal medication with the view of destroying the specific micro-organisms in the gastro-intestinal tract. When the symptoms of yellow fever present themselves, the specific germ and its toxins are already in the blood and tissues, and no amount of purgation or gastro-intestinal antiseptics could possibly affect its future course or development. This explains why all the emeto-cathartic remedies and antiseptic treatments have totally failed, either in the past or present, to control or abort the course of the disease.

(b) On the other hand, in view of the secondary infections, which so frequently complicate this disease by the invasion of the colon bacillus, staphylococci, streptococci and other bacteria of the gastro-intestinal tract in the graver types of this infection, it is perfectly logical and proper to resort to laxatives and intestinal antiseptics and a total abstinence from all foods, with the view of diminishing these secondary intoxications to a minimum. In this way proper treatment may modify the course of the disease by diminishing the perils of its latest stages.

(c) At all times it should be borne in mind that while attempting to secure the most complete asepsis of the gastro-intestinal tract no violent drastics or germicidal agents should be resorted to, as the lesions of the mucosa produced by such agents would favor the very conditions which they are intended to prevent. For these reasons a mild triturate tablet of calomel and soda (aa gr. I) followed by a saline draught, any of the purgative mineral waters, etc., given at the outset, will suffice. Then the most important means of maintaining gastro-intestinal asepsis will be total fasting or abstinence from food until the latter stages, when fruit juices, hot or iced tea, champagne, and lastly peptonized milk, if the patient is convalescent, may be given with discretion.

One of the fundamental and pernicious errors in this disease is the belief that food is necessary in its treatment, because it is a prostrating disease. This is not a wasting disease, and when it is *typical* it is self-limited and of comparatively short duration. In this way it differs radically from typhoid. The cry of the organism is not for food, which will only help to clog up all the machinery of elimination, but for water, *water* which is needed from the very beginning, to dilute the toxins in the

blood, to maintain the secretions of the poisoned organs, the skin, and, above all, to flush out the kidneys, which are blocked up so early in the struggle. Later on, when adynamic symptoms present themselves, stimulants may be given in moderation, and food of the most assimilable sort and this only, when convalescence has begun, or secondary septicemias of long duration have set in. These are the cardinal principles that would guide my treatment in the present, and are essentially those that I have followed in the past. In no condition have I taken to heart more seriously the motto "*Primum non nocere*," and if my inexperienced junior friends will only remember this caution, even to the exclusion of all else I have said, I will feel that I have accomplished some good to-night.

THE SYMPTOMATOLOGY AND DIAGNOSIS OF YELLOW FEVER.

PREPARED AT THE REQUEST OF THE COMMITTEE ON SCIENTIFIC ESSAYS, ETC., OF THE ORLEANS PARISH SOCIETY AND READ SEPTEMBER 11, 1897.

BY F. W. PARHAM, M. D., NEW ORLEANS, LA.

MR. PRESIDENT—An unusual call upon my time, occasioned by my assisting in the investigation of the disease now appearing in our midst, has made it impossible for me to give that attention to the preparation of this paper that the importance of the occasion demands. The present juncture, in my humble opinion, is a critical one, and urgently calls for all the assistance this society and the profession at large can give our Board of Health in its efforts to stamp out the grave infection which seems to have found a lodgment in our midst. In no way can we better give our aid than by carefully investigating all unusual types of fevers coming under our observation and by promptly reporting any suspicious cases for thorough examination by the Board of Experts. It was thought well by the committee on scientific essays that a paper should be prepared for the differentiation of yellow fever from other diseases with which it might be confounded, that we might agree upon some understanding of the collective data we might deem sufficient to base a diagnosis upon. As far as my time has permitted I have attempted to

carry out this request. To simplify the matter as much as possible I shall discuss the subject under two heads:

First, the SYMPTOMATOLOGY necessary for MEDICAL DIAGNOSIS of yellow fever, and

Second, the clinical data and circumstances of history and environment that would be sufficient to constitute a DIAGNOSIS FOR SANITARY PURPOSES.

First—The *medical diagnosis*.

Yellow fever may be defined as a specific infectious and communicable disease, characterized by a fever of one paroxysm of short duration, followed by a remission, ending in convalescence or in a state of prostration terminating in death. As to the classification of cases of yellow fever a convenient one is that of Beranger-Feraud given by Sternberg in his work on Yellow Fever:

CLASSIFICATION OF YELLOW FEVER (BERANGER-FERAUD).

1. *Mild Yellow Fever.*

2. *Moderate Yellow Fever.*

Onset, Frank.

Onset, Insidious.

3. *Grave Yellow Fever.*

a. Ordinary:

(1) Gastric.

(2) Adynamic.

(3) Ataxic.

(4) Congestive.

(5) Typhoid.

b. Rare forms:

(1) Hyperesthetic.

(2) Gangrenous.

(3) Algid or choleraic.

(4) Hydrophobic.

4. *Yellow Fever Sidérante or Fulminating.*

This table exhibits very well the clinical varieties of the disease. Space will not permit each variety to be separately considered, but, taking the average case, the clinical course would be as follows: After the period of incubation, varying twenty-four hours to four or five days, seldom exceeding seven, the

attack begins in one or two ways: (first) suddenly, almost without warning, the febrile paroxysm being at once ushered in; (second) more gradually, preceded by certain prodromic phenomena, included in the term *malaise*, characterized by anorexia, constipation, headache and vertigo. The first mode of attack is much the more common. Indeed, the absence of prodromes, or rather their merging with the other symptoms of the febrile paroxysm may be considered one of the features of the disease, and one very useful in differentiating it from other diseases. I shall take up the symptoms in the order of their occurrence. The period of invasion is ushered in by a *chill*, sometimes well marked and single; at other times consisting of several ill-defined rigors, but frequently not present at all. This chill is followed by severe frontal and ocular headache, pain in the loins and the limbs, pallor of the skin and rise in the temperature. This marks the period of invasion, which seldom lasts more than twelve hours.*

With the rise in the temperature the febrile paroxysm begins. The disease is manifested by a rapidly rising temperature and congestion of the face, which looks red and turgid; the eye becomes injected and brilliant, and jaundice, especially in the lower limbus of the eye, makes, with the capillary stasis, a picture which is so striking as never to be forgotten; a sign, indeed, of great value from a diagnostic point of view. Now the ushering-in symptoms, the cephalalgia, rachialgia, arthralgia and myalgia, increase in intensity, becoming at times almost insufferable, but as a rule not so severe as in dengue. The patient displays great agitation and shows an anxious expression, which attracts one's attention and is almost of pathognomonic value. The mind is usually clear, only later showing aberration, in the form of delirium, etc.

The febrile paroxysm being well established the progress of the disease is further marked by continued and rapid rise of temperature, attaining its fastigium in from a very few hours to a very few days, marking 103 to 107 deg. Respiration becomes correspondingly quickened and labored, the pulse full and accel-

*Cases are reported where the period of incubation was less than twenty-four hours, but it is rare to find any case with incubation longer than seven days. One or two months, or even longer periods, have been mentioned, but as Sternberg remarks, these are most likely the result of error of observation, or of a failure to consider the possibility of infection from a later focus or from fomites. The usual period does not exceed three days.

erated. The skin gets to be very dry in the severe cases, the stomach becomes deranged; the appetite, lost; tongue covered with white fur in the middle, the edges and tip becoming red and dry. Sometimes nausea is prominent from the beginning, but is often enough absent to keep it from being considered as an initial symptom. The patient complains of epigastric heat, pain or uneasiness. Later, vomiting may supervene and become quite severe. The secretions become less active, the urine especially diminishes in quantity, showing even on the second day albumin and a decrease in urea and total solids. About the third day a change takes place, the temperature and pulse decline and the other symptoms abate. The stage of calm or prostration begins. If the case be one of moderate severity the patient now begins to improve and convalescence sets in. Sometimes, however, and especially in severe forms, after a few hours of remission, all the symptoms get worse and marked prostration supervenes.

It might be well to consider more particularly some of the symptoms which are especially significant of the disease:

There is a marked hemorrhagic tendency, more so than in any other disease with which we are familiar.* This tendency is especially manifested in the gastro-intestinal tract as distinguished from the urinary. In severe cases, black vomit is not infrequent, and hemorrhages from the nose, gums and kidneys and other organs may show themselves. Uterine hemorrhage is not infrequent in non-gravid females. Later in the disease hemorrhage from the bowels may be manifested, but this is usually due to the passing of blood from the stomach down into the bowels. In the urine, we have some prominent and valuable signs. The quantity, as we have remarked, begins to diminish on the second day in nearly all cases. Albumin shows itself by the third or fourth day. It is rarely absent altogether in any case, and frequently occurs in large quantities.†

It disappears mostly with the fall of the temperature during the last stage, but is occasionally found in convalescence. The solids, especially urea, uric acid and the chlorides, occasionally

*In Dr. Davidson's reminiscences of yellow fever in New Orleans, 1828 to 1878, he makes the statement that the epidemics of 1828, 1829, 1830, 1837 and 1839 showed marked hemorrhagic tendency, as compared with those of 1841, 1847, 1853, 1858 and 1859.

†In the disease now under observation in New Orleans, since this paper was written, albumin has been so constant a symptom, in mild as well as severe cases, that we have learned to regard it as almost necessary for the diagnosis, and almost pathognomonic when occurring, no matter how mild the case.

somewhat increased at first, perhaps, very soon become markedly diminished.

Jaundice, although giving the name to the disease, is by no means constant, and is often not marked before the fifth or sixth day, though careful examination will reveal quite early more or less tinting of the conjunctivæ. The bowels are usually constipated, but in the latter stages of the disease diarrhœa may supervene. The mind is clear in 95 per cent. until the end of the disease, whether recovery or death ensues. Delirium shows itself relatively seldom, and then chiefly in the last stages. The temperature and pulse ratio originally pointed out as of diagnostic value by Dr. J. C. Faget, Sr., of this city, forms one of the most valuable indications. The initial temperature may be 102 deg. and reach an average maximum of 104 deg. in from forty-eight to seventy-two hours, then gradually falls. The remission takes place usually on the third day, but may take place on the fourth or fifth day. The duration is not more than sixty hours as a rule. The third stage lasts usually about three days. The pulse, which is in the first stage accelerated, as in nearly all febrile paroxysms, begins soon to descend, and continues to fall even while the temperature may still be going up, and may continue to fall well into the stage of convalescence, so that the discovery of a pulse out of correspondence with the temperature is always a suspicious sign. Much importance has been attributed by some to the development of a peculiar odor, especially observed late in the disease, but our experience in the epidemic of 1878 does not, in our opinion, justify one's according it such a high place in the symptomatology.

The subject of yellow fever in children is of sufficient importance to merit separate consideration. Dr. Guiteras especially insists upon the occurrence of yellow fever in children, in countries even where it is endemic. It is remarked that the fever is comparatively rare there among adults, these having been rendered immune by attacks in childhood. Even the names given to the diseases of children in countries where it is endemic indicate that yellow fever has not been recognized there in children, yet we must now admit that it does now occur quite frequently in them, although in many cases it may assume a milder form.*

*Dr. Joseph Jones, indeed, in his valuable work on yellow fever, shows that the disease may be transmitted to the fœtus in utero without the mother's being affected.

To make the differential diagnosis in children we have to distinguish it from ephemeral fever and from thermic fever, which latter is a functional fever due to the important demand made upon the functions. The function of heat-inhibition especially becomes overtaxed in the long summers.

The three cardinal points, pulse-temperature ratio, facies and the urine will be sufficient ordinarily for the diagnosis.

Having thus run through the symptomatology of the disease, it remains to map out the differentiation of yellow fever from each separate disease with which it may be confounded. At the outset it is well to understand that while typical cases of yellow fever may be easily distinguished from typical cases of other diseases the less marked forms may give rise to very great difficulty in differentiation. This is especially the case in the beginning of the disease in any locality. Then, again, it must be remembered that yellow fever is frequently associated in locality with other diseases, particularly dengue, and that at first it is difficult to distinguish them from one another. For instance, Dr. F. Peyre Porcher, in an article prepared for the last Pan-American Congress, makes the statement that yellow fever in Charleston was always accompanied by dengue, and that the two diseases were very difficult to separate clinically from one another. There were no distinct lines of demarcation. No one could state the precise diagnostic differences. The cases which were properly managed got well and neglected cases were apt to die. Severe cases were apt to be called yellow fever and the lighter cases dengue. While we can not in this day for a moment doubt that the two diseases are as distinct in their pathology as any two diseases can be, still we are confronted with the great difficulty that when the first cases prevail they do resemble one another very closely.

We will take up the differentiation first of yellow fever and dengue.

YELLOW FEVER AND DENGUE.

Taken (with some modification and additions) from Holliday's Diagnosis Table in Matas' Article on Dengue in Keating's Diseases of Children.

	Yellow Fever.	Dengue.
PAROXYSM	Single	May show two with remissions between.
TEMPERATURE	Rises regularly	Rises irregularly.
DURATION	72 hours (average).....	3 to 5 days.
TONGUE	White centre, red pointed tip and edges	Broad, white and indented.

	Yellow Fever.	Dengue.
CONJUNCTIVÆ	Injected	Rarely very red.
STOMACH	Irritable	Nausea.
VOMIT	Frequent	Rare.
NEURALGIC SIGNS.	Severe pains in head, back and limbs.....	General pains, even more violent; joint pains being especially prominent.
	Great jactitation; hebetude.	Restless; less from the pain, manifestations of impatience.
ERUPTION	Rare	Early appearance of eruption.
JAUNDICE	Early, especially in conjunctivæ.....	Never.
NERVOUS EXHAUSTION	Prominent and alarming.....	Profound but not alarming.
SECRETIONS.....	All suffering.....	Natural.
URINE	Scanty—albuminous.....	Exceptionally albuminous.
HEMORRHAGES.....	Frequent and alarming.....	Slight and insignificant.
BLACK VOMIT.....	Not frequent	Very rare.
RECOVERY	From 2 to (?) per cent. (16.66 per cent. in New Orleans in 1878 of 27,000 cases. Jacksonville 10 per cent. of 4500 cases). Some epidemics have been remarkable for the small mortality exhibited and others for its great fatality.	Never fatal.
RAPIDITY OF SPREAD	Rather gradual and systematic.	Very rapid, like wildfire.

We come next to the differentiation of yellow fever from the different forms of malarial fever. In the table the term "Malarial Fever" will be used to include cases of pernicious malarial fever, bilious remittent fever, intermittent fever, malarial fever of the congestive type and malarial hematuria. In this way we think the table may be more easily consulted for the differentiating symptoms of a particular form of disease concerned:

	Yellow Fever.	Malarial Fever.
PREVIOUS HISTORY	No history of previous similar attack	Previous history of one or more malarial attacks.
LOCALITY	Possibility of the introduction of fever from without.	A similar fever endemic in the locality.
PAROXYSM	Single	More than one, intermittent or remittent.
CHILL ..	May usher in an attack, but often absent and seldom prominent.	Nearly always present and frequently marked.
TEMPERATURE	Rises rapidly but regularly; usually not high.....	Rises irregularly; may be quite high, with remissions or intermissions.
EFFECT OF QUININE	Slight if any	Decided.

	Yellow Fever.	Malarial Fever.
PULSE	Low; not in correlation with the temperature after 48 hours.....	High; commensurate with the temperature throughout.
REMISSION	Marked	Not sudden but repeated.
TONGUE	White in the middle, red at the tip and edges; pointed	Coated, broad and flabby; sides indented showing edema.
YELLOWNESS OF		
SKIN	Not prominent at first	At outset in malarial hematuria.
SPLEEN AND		
LIVER	Not perceptibly enlarged ...	Enlargement may frequently be made out.
VOMITING	At first not frequent and not bilious; occurs even in third stage.	Early and frequent, bilious ceases with fall of temperature.
HEMORRHAGIC		
TENDENCY	Black vomit and other hemorrhages rather to be expected.	Rare except in the urine.
URINE	Albumin prominent; hematuria absent.	Albumin absent; hematuria present in malarial hematuria.

From TYPHOID FEVER the differentiation is difficult only in the first few days. The circumstances attending the development of the disease, the occurrence of other cases and the more rapid rise of the temperature, the sudden onset of the disease without marked prodromic phenomena, the prominence of congestion of the skin and the facies and the absence of typhoid eruption will determine the diagnosis in favor of yellow fever. The possibility of importation of the infection and the absence of evidence of contamination of water supply are circumstances of importance. Later, the march of temperature and its duration settle the question. The *early* occurrence of albuminuria (without Bright's disease to explain it) is almost pathognomonic of yellow fever. Add to this the pulse-temperature ratio of Faget and there should be no difficulty.

N. B.—The difficulty in making a diagnosis between typhoid could only obtain as to some particular case, the difficulty vanishing when the number of cases multiplied.

From EPHEMERAL AND THERMIC FEVERS in children yellow fever would be distinguished by the facies, albuminuria and the absence of correlation of pulse and temperature. These signs failing, reliance would have to be placed on the rapid spread of the disease and the discovery of some few typical cases.

From INFLAMMATORY FEVERS yellow fever would be distinguished by the discovery of the signs of an efficient local cause

of the fever by the irregularity of the fever and the history of its development.

In all these instances the evidence of the operation of a spreading contagion should be sought if the diagnosis be in doubt.

Finally, in all doubtful cases the bacteriological diagnosis should be resorted to and depended upon.

In typhoid fever the reaction of the blood-serum on the bacillus of Eberth would be of assistance, though not conclusive, since a previous attack of typhoid might be misleading. The undoubted recognition of the Eberth bacillus in the blood or in the urine would settle the diagnosis.

The finding of the spirillum Obermeieri would prove the existence of relapsing fever, which is not seen with us.

The discovery of the tertian or quartan forms of the malaria plasmodium of Laveran would indicate the presence of malaria, but it is not yet proved that this would absolutely negative the diagnosis of yellow fever, since clinical experience would seem to indicate the possibility of the concurrence of the two diseases.

There is strong reason for believing that Professor Sanarelli has discovered the positive evidence of yellow fever in his bacillus icteroides. It is to be hoped that very shortly the search for it will be so much facilitated as to make it available for diagnostic purposes.

SECOND—*The diagnosis from a sanitary standpoint.*

If the diagnosis of first cases be so difficult, it is nevertheless very important that the presence of the infection in a locality be recognized at the earliest possible moment, that its spread may be prevented.

For purposes of prevention, the following groups of symptoms shall be considered to indicate yellow fever:

Group First—A person after (*a*) a sudden attack has (*b*) a fever of one paroxysm, attended with (*c*) marked congestion or blood stasis of capillaries of the surface, conjunctivæ and gums, with (*d*) a history of probable exposure to infection and (*e*) no history of a previous attack of yellow fever.

Group Second—A person after (*a*) a sudden attack has (*b*) fever of one paroxysm, followed by (*c*) unusual prostration, (*d*) albuminous urine, (*e*) yellowness of conjunctivæ or skin,

and having (*f*) no positively authenticated history of a previous attack of yellow fever.

Group Third—A person has (*a*) a fever of one paroxysm, (*b*) albuminous urine, (*c*) black vomit, (*d*) suppression of urine, or (*e*) general hemorrhagic tendency, under (*f*) circumstances where exposure to infection is a possibility.

Suspicious cases of yellow fever :

For sanitary purposes the following symptoms, associated with a fever of one paroxysm in a patient who has apparently been exposed to infection and has never had yellow fever, shall be held to justify (if occurring between May 1 and November 1) in either of the six following cases a suspicion of this disease, viz. :

First—Suddenness of attack, either with violent pain in back and head, injected eyes and face, or with marked congestion of the superficial capillaries.

Second—Want of that correlation between pulse and temperature usual to other forms of fever.

Third—Albuminous urine.

Fourth—Black vomit.

Fifth—General hemorrhagic tendency.

Sixth—Yellowness of skin.

The following cases shall also be deemed suspicious :

Seventh—Any cases respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever.

Eighth—Any case respecting which efforts are made to conceal its existence, full history and true nature, in violation of Sec. 23, city ordinances of May 18, 1870, and Sec. 22, city ordinances, June 24, 1879.

The above presentation of this subject is that prepared in 1881 by Prof. Samuel M. Bemiss, and adopted by both the New Orleans Medical and Surgical Association and the Orleans Parish Medical Society. It is published in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* for May, 1881 (Vol. VIII, p. 2002), and has just been adopted as this goes to press by the State Board of Health of Louisiana as a guide to physicians in the reporting of cases.

THE TREATMENT OF YELLOW FEVER*

BY T. S. DABNEY, M. D., NEW ORLEANS.

The treatment of yellow fever may be divided into (*a*) the hygienic, (*b*) the dietetic, (*c*) the therapeutic and (*d*) the surgical. Pending the investigations being made by bacteriologists all over the world into the claims of the latest aspirant, Sanarelli, to the honor of having discovered the *vera causa* of yellow fever, the bacillus that has for ten years eluded Sternberg, that has successively baffled the brilliant Gibier, Carmona y Valle, Freire and Finlay, and which he has named bacillus icteroides, we must fall back upon that line of treatment which, though possibly based on false etiological grounds, yet yields the best results, and, at all events, one that seems to meet plain and specific indications. Perhaps it would not be out of place to review briefly the line of treatment pursued here in the past. A brisk purgative; hot mustard foot bath; patient covered with one or more blankets to promote profuse diaphoresis; hot orange leaf tea *ad libitum*, and, at times, in the beginning an emetic; absolute interdiction of cold drinks, though cracked ice was allowed in small quantities for nausea. Spirits of nitre, or watermelon seed tea, and some such diaphoretic as spirits of mindererus, coupled with a four days' fast, about completed the treatment up to the defervescence of the fever. Dry and wet cups and leeches were often used—the main reliance, however, was in sweating and starving the fever out. The results obtained by this method in simple and uncomplicated cases were most excellent, and often exceeded those where a more vigorous treatment was pursued.

The reasons for this success are not hard to find: (1st) most cases of uncomplicated yellow fever tend to recovery; (2d) it usually did no harm, and (3d) the great faith of the Creole nurses in its efficacy, by a species of hypnosis, gave much encouragement to the patient, greatly facilitating thereby his recovery. This treatment is practically the same as that pursued to-day by the Cuban peons, many of whom boldly assert that only those Cubans die that are treated by doctors. Thus it will be seen that this disease, if not over-treated, tends to recovery. The main indications being *Rest* (spelled with a cap-

*Read before the Orleans Parish Medical Society.

ital R) in the horizontal position, a spare diet, perfect quiet, plenty of fresh air, gentle stimulation of all the emunctories, an abundance of cold water to quench the thirst, as well as to flush the kidneys, and the judicious administration of stimulants and easily digested liquid foods when the vital powers begin to fail. This will do in simple cases; but the difficulty lies in separating the complicated from the uncomplicated ones, as this disease, above all others, is very deceptive. Many cases that give every indication in the beginning of a happy termination end abruptly in death and the converse; hence we must resort to a method based on more rational grounds if we would make any advance in the treatment of this affliction that seems to disorganize the blood *ab initio*. For a number of years it has been claimed by Sternberg, Joseph Jones, Bellver Mateo, Pedro Peñuelas, Alfredo García y García and many other well-known students of this affection that it is a gastro-intestinal affection of microbic origin. Whether the bacillus or its toxins give rise to all the train of symptoms or not matters little, as the treatment, based upon this theory, must be one looking to ridding the intestinal tract of all offending substances, and of rendering it, by the use of antiseptics, unfit for the habitation of the bacillus. Acting upon this theory, Sternberg introduced to the profession his well-known bichloride treatment; the Spanish surgeons stationed in Cuba—Mateo, Peñuelas and others—their naphtha and benzoate of soda treatment.

Dr. Alfredo Garcia, of Santiago de Cuba, reasoning from the well-known fact that yellow fever does not occur in cold climates and that, when it does occur in the temperate zone, it tends to decrease with the fall of the temperature; yet, recognizing that its micro-organism can withstand 110 degrees (centigrade) below zero, he conceived the brilliant idea of producing artificially in the tropics, by means of Cámara Polar, the frigid zone. This Cámara Polar is an ingeniously constructed building, somewhat on the order of our refrigerating storerooms, where the temperature can be rapidly cooled at will. Being a firm believer in the germ theory of the disease and of its well-known infectiousness, and having observed that its virulence was in proportion to the amount of infection present, and believing that each patient was subject to successive infections during the five or six days of his illness, from the atmosphere around him,

laden with the deadly germs contained in the gases thrown off by the skin, lungs, dejecta and vomit in an atmosphere at a temperature suitable for their growth, he determined that as he could not transport his patients to a climate free from such surroundings, conditions and temperature, he could at least transport the climate to his patients. He also claimed that the importance of these new infections has been demonstrated by the experiments of inoculation of Cheveaux Walson, Cheryne and Bouchard, which go to prove that the number of microbes introduced into the organism influences the gravity and intensity of the disease. Garcia does not claim that the Cámara Polar exercises any specific action on the microbe of yellow fever, but that the cold air of his chamber renders the micro-organisms and their products inert, as biology teaches that the microbe, like the cell, requires a suitable medium to live in and fulfil its functions. By order of the Captain General of Cuba a commission of learned medical men met in the military hospital of Havana on the 19th of August, 1892, to discuss this new method. Dr. Garcia presented a list of 68 cases (after subtracting nine that suffered from intercurrent yellow fever) treated in September, 1890, in Santiago de Cuba, with a mortality of 4, less than 6 per cent. Nine cases, all soldiers, were treated then, under the supervision of the commission in the military hospital in Havana, and two deaths occurred. The necropsies showed that one patient had ulceration of the pericardium, whilst the other suffered from mitral insufficiency together with adhesions of both pleuræ and congestion of the lungs which antedated the yellow fever and for which both soldiers had entered the hospital. The finding of the commission was that neither of these fatalities was in any way due to the yellow fever or its treatment by the Cámara Polar. Now it is well known that the Spanish soldier is, at best, but a poor subject for yellow fever.

Pardon me for taking up so much of your time in describing this treatment, but I did not think any article on the treatment of this dreaded visitor from the Indies, now knocking at our doors, would be complete without mentioning a method yielding such results. For as private practitioners the plan is *not feasible*, yet, if, upon further investigation, it prove valuable, there is no reason why a hospital, devoted to the treatment of the fever

by this method, should not be erected. For the present, we will have to content ourselves with a plan of treatment suitable to private practice.

HYGIENE: The hygienic treatment consists in having the surroundings scrupulously clean; vaults, kitchen drains and gutters should be rendered as aseptic as possible by using solutions of sulphate of iron and Hg. bichloride. Remove unnecessary draperies from the patient's bedroom and let the ventilation be free. Sunlight, that great foe to dampness, moulds and various bacteriological forms of life, is to be insisted upon when practicable. The microbe of yellow fever, like the thief in the night, seems to delight in stalking in dank, dark places. We know that the bacillus of many diseases seems to owe to moulds its power of proliferation, if not life itself. Patients treated in tents prove the benefit of ventilation, sunlight and freedom from mould. All alvine dejecta, vomited matters and urine must be promptly removed, and some deodorizing disinfectant used. All forms of excitement, such as much talking, reading aloud and *whispering* ought to be interdicted in the sick chamber. The attendants must answer questions only, and not lead in conversation. Visitors must be rigorously excluded, and even nervous members of the family when their presence excites the patient. Nothing but cheerful facts should be imparted. The prevalence of the disease, business matters, the death of friends and loved ones should not be discussed. Should it become necessary to call in a consultant the patient's suspicions must not be aroused as to the gravity of his illness.

DIETETICS.—There exists a wide diversion of opinion on this subject for the first four or five days. Most of the older and many of the modern practitioners recommend an absolute fast of four days at the least. No less an authority than Dr. Segundo Bellver Mateo, surgeon major in the Spanish army and chief of the body of the military sanitation of Cuba, states in his "Tratamiento Médico del Vómito Negro," published in Transactions of Pan-American Medical Congress, 1893, that an absolute fast of at least five days must be insisted upon, asserting that the American cholera (typhus icteroides), like its Asiatic congener, must be destroyed by hunger and drowned in water (matarlos de hambre y en agua a porgarlos). We can not treat lightly the opinion of one whose table of mortality shows such

brilliant results. He claims a death rate of 1.5 per cent. in cases wherein treatment is commenced within twelve hours of the invasion of the attack; 3 per cent. in those of the second twelve hours of the first day; 13 per cent. in those of the second day; 30 per cent. in those of the third day and 70 per cent. in those of the fourth and fifth day. Figures, if true, needing no comment, figures which show that the fate of the patient is dangerously compromised by delay—each twelve hours augmenting the danger. This point is further emphasized by the statistics of the Military Hospital of Havana, where the same relative results are obtained under a different plan of treatment. It will be seen from this the imperative necessity of promptness in beginning treatment, a necessity so great that to neglect it were criminal. Dr. H. D. Geddings, past assistant surgeon United States Marine Hospital Service, advises milk and lime water for the first few days, then light broth, with fat removed, and as the fever defervesces, soft-boiled eggs, milk toast, bits of the white meat of the chicken and small portions of very tender broiled steak; the variety and the quantity of food to be cautiously increased for ten days at least before the patient's customary diet is allowed. Dr. C. Faget (*vide* Annual Report of U. S. M. H. S., 1894) recommends, from the beginning, milk in abundance, broth two or three times daily and from two to six soft-boiled eggs a day. Dr. Alfredo Garcia does not advise any food before the third or fourth day, unless Jaccoud's tonic; brandy and gin can be classed in that category. These he administered sparingly during the first few days, as stimulants, not food. Dr. Viegas, a highly educated physician (four years' study in the French capital) and a practitioner in Cuba for years and now a temporary resident of this city, assures me that he, together with many, if not all "practical" physicians in Cuba, prohibit all food the first few days, and after defervescence takes place its administration is cautiously begun and carefully limited as to quantity and digestibility. Our own distinguished colleague, Dr. Matas, pursues a similar plan.

I will not tire you by citing other authorities for this preliminary fast, varying from three to five days, *pro re nata*. In this connection we can all appreciate the aphorism of the great Sydenham, that "one-fourth of what *we eat keeps us* and *we keep three-fourths at the peril of our lives.*" Let us look into the

rationale of this fast. First, yellow fever is *not* a wasting disease, hence needs no preparative treatment; second, the short duration of the fever precludes the necessity for sustenance; third, the action of the liver, kidneys, stomach and intestines, together with their digestive apparatus, are so badly handicapped by the deadly micro-organism of this disease, or its toxalbumins, as to render the absorption of any food improbable, if not impossible; fourth, as the liver, by reason of its degeneration, is no longer able to filter the bile from the blood; and the kidneys, for the same reason, the urea—it holds to reason, founded on practical experience, that to add further material in the shape of food to that already surcharged blood current were to add fuel to the flame.

When the patient's condition warrants it the physician, at his discretion, can select from the following diet list: Sweet milk, buttermilk, Horlick's malted milk, whey, white of a raw egg in half-glass of ice water, soft-boiled and shirred eggs, Valentine's beef juice, broths, well skimmed and strained, of chicken, beef or mutton; oyster stew (not the oysters), corn-meal gruel and oaten porridge. That preparation so much in vogue in 1878, miscalled beef tea, can not be too severely condemned, as it is neither beef nor tea. Most of the beef extracts in the market are valueless and should never be ordered. The best extract of beef, by all odds, can readily be made by expressing the juice from a rare round steak, free from fat, by means of a cheap meat extractor obtainable at any hardware store. The juice thus obtained, rich in albuminoids and organic salts, after being properly seasoned, is readily digested and extremely palatable. It should be taken as soon as made—hot. Should stimulation be required, champagne (dry preferred), brandy, rum, gin, Ducro's Elixir, Panopepton, elixir coca erythroxyton, hypodermics of strychnin and trinitrin will be found of great value.

Neither fruits nor vegetables should be allowed until convalescence is well assured.

THERAPEUSIS: Granting that Sanarelli is correct in believing the germ of this fever to have its habitat in the blood itself, and not in the gastro-intestinal tract, the fact still remains that yellow fever must be classed and treated as a septic disease, and the intestines, reeking with fetid and at times putrid contents, as evidenced by the odor of the dejecta, must be swept out promptly,

and kept swept out, to prevent auto-intoxication. Granting Sanarelli's claim true, and let its logical sequence—serum therapy—follow, we would still have to remove the results of these germs, just as we open an hepatic abscess to remove the pus caused by a streptococcus or a staphylococcus, or the bacillus communis coli. All of our energies are bent on curing this septic fever by removing—not the *fons et origo*, the coccus—but the detritus, the pus, that slowly but surely is sapping the patient's vitality.

Intestinal antiseptics has been practically abandoned by even its most ardent admirers, for the average micrococcus seems better able to withstand germicides than his host. What an array of these germ destroyers have been flaunted before the profession in the past ten years! and what claims have been made for them by our manufacturing pharmacologists! Although we now recognize our utter inability to asepticize the intestinal tract, we can remove therefrom, by means of enemata, medicated or not, and purgation systematically employed, the great mass of septic matter.

Furthermore, we have reasons for believing that we may render the remaining contents of the intestines less actively poisonous by the use of such remedies as naphthols A. and B., salol, benzoate of soda, bichloride of mercury, peroxide of hydrogen, and so on to the end of the list. I have purposely left out the latest aspirant to public favor—formaldehyde—though its claims seem based on good grounds. Believing this, the first indication in this disease would, logically, be the administration of a prompt and efficient purge, to be repeated if necessary; for, bear in mind that constipation, in this disease, is the rule. I deem it very important to state that I consider salines preferable to all others; and, furthermore, I place sulphate of soda at the head of the list, and this in doses of from one to two ounces in six ounces of water, p. r. n., to be repeated if vomited, for the following reasons: on account of its well-known action on the liver; then it is the most active of the series, and last, though not least, it has stood the test of that hot-bed of yellow fever, Cuba, and is habitually employed by many of the eminent practitioners of that unhappy island.

Within two hours after the administration of the saline,

I would put the patient, by preference, on Sternberg's modified bichloride treatment, which is—

℞ Natrii bicarbonatis.....	3 iv.
Hydrarg. bichlorid.....	gr. ss.
Aquæ dest.....	℞. ij.

M. Sig. One and a half ounces, every hour, ice cold.

Medical News, Vol. LIV, June 15, 1889.

This treatment was used very successfully in Jacksonville, in the Garcini Hospital, Havana, and in Rio Janeiro. In the first named place, a mortality of 4.7 per cent in 106 cases was obtained. The twelve cases so treated in Havana all recovered. Of the four in Rio one died.

Or I would order Beta Naphthol in seven and a half grain doses every hour or two, according to the indications, to be supplemented by a drink to be taken *ad libitum*, composed as follows:

℞ Natrii benzoat.....	3 ijss-ijj
Sacchari albi.....	3 ij-3 iv
Aquæ dest.....	℞. ij

• Sig. To be drunk freely, admixed with an equal quantity of seltzer water, ice cold.

This is practically Mateo's formula. Copious enemata of from one to three quarts of cold water, containing two ounces of sulphate of soda, should be administered each day, and high rectal irrigation by means of the tube is to be especially commended. The effect on the well-being of the patient and his temperature is often most marked. In spite of the well-known inhibitory effect of the anilin derivatives over the oxygen-carrying power of the blood and its ozonizing function, as well as their cardiac depressant effect, I would *yet* recommend, as do Dr. Geddings, C. Faget and many others, their moderate use, the *first twelve* hours and no longer, under *any consideration*. Usually, one dose of acetanalid, grains five, or phenacetin, grains seven or eight, suffices to calm the excited patient and relieve his intense cephalalgia. Their well-known analgesic properties commend them. Never should more than three doses be administered to any patient. It is customary with some timorous practitioners to combine the citrate of caffenin with these remedies to counteract their depressant action. This I believe to be based more on theory than practice.

Of course, the use of pleasant effervescing purgatives, such

as the solution of the citrate of magnesia, is not condemned, but, on the contrary, endorsed where the state of the stomach demands it. Castor oil, like hot drinks, is only mentioned to be condemned. With the olive oil and lime juice treatment I have no experience, but I would state that the Cubans esteem it very highly. Should nausea prove obstinate, all medication *per orem* and drinks should be discontinued, and a hyperdermic of one-fourth grain of cocain hydrochlorate be given, or else one-sixth grain morphia combined with atropia gr. $\frac{1}{150}$. Cracked ice is often an efficient remedy. Creosote, also, is of great repute here. Sinapisms and dry cups to the epigastrium are also valuable, as I can personally attest.

It has seemed to me that a mixture composed of Liq. ammoniac acetatis and acetic ether, in sweetened water, has had a most happy effect in many cases treated by me; but I fully realize that such treatment is purely symptomatic.

Salicylate of soda is inferior to the benzoate in several particulars and superior to it in none, hence it can not be recommended.

For the reduction of hyperpyrexia I regard nothing so good as cold water—baths, spongings and entero-clisis. Patients should also be encouraged to drink cold water freely.

Dr. A. P. Merrill used, in 1820, during the epidemic at Bay St. Louis, nothing but cold shower baths for reducing hyperpyrexia, the patient being well rubbed and covered up afterward.

His treatment was calomel, gr. xx, or oil, bleeding to faintness and shower baths. Diet: Corn meal gruel. Claims to have treated 700 of Zachary Taylor's soldiers, with a mortality of seven. He claims equally favorable results elsewhere. Could it be possible that the results were due to his treatment or in spite of it? Personally, I believe judicious blood-letting in selected cases to be very valuable. I can never forget an accidental bleeding I gave a young girl, suffering from intense cerebral congestion and profoundly unconscious, the dreaded black vomit, harbinger of death, being hourly expected. I applied at midnight six large leeches, three on each side of the neck, swollen with its turgid vessels, directed the nurse to remove them when they had gorged themselves; went to bed and was aroused at 4 A. M. with the cheerful news that the girl was bleeding to death. The blood had saturated the mattress and

run in a little stream on the floor to the fireplace, half-way across the room. I found my patient well nigh exsanguinated, her face blanched, but her intellect clear, and practically she was convalescent. She made a good but slow recovery.

Viewed from Sanarelli's standpoint, the loss of that amount of blood meant also the getting rid of just so many bacilli, and was scientifically, what it proved to be practically—good treatment. This subject will be briefly alluded to under the surgical caption.

The exhibition of the cinchona salts in yellow fever is believed to be productive of no good results, but of several untoward ones—notably, that of predisposing to hemorrhage, and of intensifying the nervousness. Unless malarial complications are *well* defined, these salts should never be given. I see no reason for Blair's celebrated initial treatment.

Calomel.....	gr. xx
Quinine.....	gr. xxiv

At one dose.

How so able a man as Dan Blair ever arrived at such a dose is a mystery yet unsolved.

Very many remedies have been suggested for checking black vomit, which, being but the result of the hyperemic condition of the stomach, should not be treated as a cause, but an effect. Dr. Faget places great reliance upon the tincture of the chloride of iron; Dr. Llenas, of Santo Domingo, upon the perchloride; others on ergot. These and all other remedies are but broken reeds to lean upon at that crisis of the disease.

Quite a number of patients recover after this symptom develops under any or no treatment, but not on account of it. The most fatal of all symptoms, anuria, taxes the physician sorely, and many are the expedients resorted to for stimulating renal secretion, but, in the vast majority of cases, all prove vain in our hour of need. Gone is my faith in nitre, watermelon seed tea, local applications of squills and digitalis in equal parts (quijano), and the much-vaunted pilocarpin—that remedy which was supposed to make the skin take on the vicarious action of the kidney. That pilocarpin sometimes does good, and oftentimes harm, I do not deny. Wet cups have seemed to be beneficial at times; but in this connection it may not be amiss to state that *cured* cases of anuria often turn out to be cases of reten-

tion. Patients do recover after the occurrence of this grave symptom—but not many. That most violent and painful of all counter-irritants, the moxa, holds out some faint hope in this direction. Turpentine in drachm doses, now readily administered in Planten's hard or soft capsules, is often given in this country; whereas gin, practically possessing the same therapeutic effect on the kidneys, is given the preference in Cuba. This remedy is worthy of trial.

I can not discuss *in extenso* the therapeutics of yellow fever. I but open the way for discussion.

SURGICAL TREATMENT: Intravenous injections of normal saline solution; toxidiffusion; blood-letting; hypodermo-clysis; cupping. Great results are obtained from the use of the first of these procedures. Dr. Mateo considers that he has wrested from the very jaws of death a number of patients suffering from anuria by this means. There is no question about the very great value of this saline solution injected in the veins, in just the very conditions so often found in yellow fever—septicemia, uremia and lack of arterial tension. This solution should be sterilized and perfect asepsis enjoined in its use. When the vital powers are flagging great good may be expected from it. Two or three pints of sterilized normal saline solution thrown into the circulation often act magically. Toxidiffusion is strictly in line with modern thought, as, by its use, a portion of blood charged with septic matter and laden with microbes is removed from the patient, and an aseptic, life-giving fluid substituted. This added fluid serves to attenuate the remaining blood and renders it less septic. Blood-letting is only useful at the commencement of the disease. It is then often very valuable. Dr. J. P. Davidson thought it often of unquestioned value. Leeches are embraced under this head.

Hypodermo-clysis is but another form of "drowning" the patient—that is to say, of introducing water into the system. It is reported as especially efficacious in oliguria and anuria.

Cupping, once so much in vogue, has, to use Mr. Cleveland's hackneyed expression, sunk into "innocuous desuetude," a very undeserved fate, as both wet and dry cups are important adjuncts to our armamentarium.

THE YELLOW FEVER AT OCEAN SPRINGS, MISS.—REPORT OF A CASE AND AUTOPSY.

BY JOHN J. ARCHINARD, M. D.,

Instructor of Clinical Microscopy New Orleans Polyclinic; Assistant Demonstrator of Microscopical Anatomy and Bacteriology Medical Department Tulane University of Louisiana; Assistant Bacteriologist Louisiana State Board of Health.

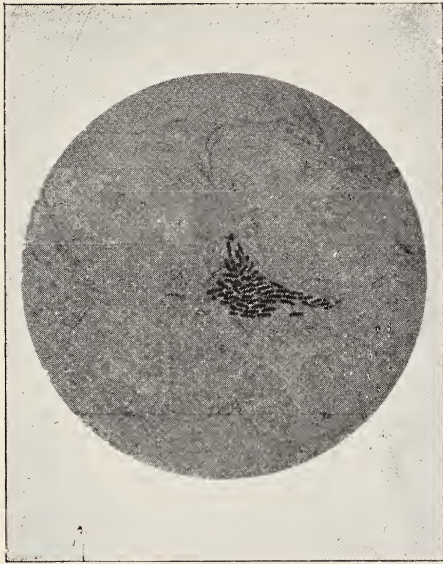
The topic of the greatest interest just now to the medical profession and to the people of the United States, but more especially of the Southern States, is the yellow fever at Ocean Springs.

This pest had almost been forgotten, and the dread of it was a shadow of the past.

The spontaneous evolution of yellow fever is a theory that was proven false years and years ago; so that when this disease made its appearance the questions which naturally presented themselves were: "How was it introduced?" "From what source?" "And at what time?"

All experts who have visited Ocean Springs have concluded that there are two distinct types of diseases, viz.: dengue and yellow fever.

It is a known fact, and also from information secured from Dr. Bailey, a resident practitioner, that the first case of dengue made its appearance about the 21st day of June. As for the yellow fever, the first case can be readily traced to August 13, and was brought to notice by the fact that a gentleman, Mr. F. McD. Rumsey, of Louisville, Ky., who had been boarding with the Gonzales family, returned to his home on August 13, and was taken sick on the night of his arrival with a chill, fever, headache, pains in the joints and extremities and other symptoms, which led his physician, Dr. Holloway, a graduate of the University of Louisiana, Class of '57, to believe that his patient was afflicted with a disease resembling very much that of yellow fever; so much so, that the doctor telegraphed to Dr. Olliphant, president of the Louisiana State Board of Health, asking if any yellow fever existed at Ocean Springs. Dr. Olliphant answered that he was not aware of this fact. Dr. Holloway then wrote to Dr. Olliphant that his patient had died with all the symptoms of yellow fever. Dr. Olliphant telegraphed Dr. H. to hold an autopsy, but the corpse had been injected and buried; it was too late to do so. So, if we could properly call



Section of kidney (magnified 1200 diameters) from the yellow fever case described opposite, showing what appears to be the *Bacillus Icteroides* of Sanarelli and which he claims as the causative agent of yellow fever.

Cultures made on Agar from the blood in vessels of liver in same case have given small, roundish, opaque growth, which examined microscopically, show similarly shaped bacilli as those above, but somewhat smaller.

this yellow fever, it originated at the Gonzales boarding house on that day (13th) in August.

How was it introduced, and from what source? I was informed by Dr. W. H. Woods, chief sanitary inspector of our board, that, at the Gonzales boarding house, meetings of several Cuban refugees took place. Other persons have informed me that the Cuban refugees would come to Ocean Springs in catboats, thereby escaping the observation of the Ship Island quarantine officers. This is very probable, as Ocean Springs is not so very far from Cuba.

Mrs. Rumsey, the wife of the man who died, informed Dr. Holloway that the Gonzales family had relatives just arrived from Cuba, visiting them, during her stay there. It is probable that these persons brought with them articles from some infected Cuban towns. But the consensus of opinion and belief among the residents of this village is that it was introduced by some persons escaping the quarantine in catboats; when one or two ships were in quarantine at Ship Island, they assert that men from these vessels would continually have free intercourse with the shore at night. I do not believe this, for I surely give more credit to the United States Marine Hospital Service in the manner of managing quarantine.

At some later date I presume that these questions will be fully investigated and the source from which this disease originated will have been discovered.

Pursuant to an order of the Board of Health to proceed to Ocean Springs to investigate the disease prevailing there, Dr. Olliphant, accompanied by the chief of each department: Dr. Gill, shipping inspector; Dr. Woods, chief sanitary inspector, and his assistant, Mr. Will; Dr. Metz, chemist, and myself as bacteriologist, left this city on the evening of September 4. Upon our arrival at Ocean Springs we were met by Dr. Haralson, State health officer of Mississippi, who introduced to us Dr. Saunders, State health officer of Alabama; Dr. Wasdin, pathologist of the U. S. Marine Hospital service, and Dr. Bailey, a resident practitioner. A conference of all present was called in order to hear the expression of opinion relative to the prevailing disease. I will not enter into the details of this conference, as they will be published in the Board of Health Bulletin.

Retournons à nos moutons. Through the courtesy and kindness of Dr. Bailey I was permitted, in company with Drs. Gill and Saunders, to see several of his patients. Only one patient out of six aroused our suspicions, namely, Miss Schutze.

The following is the history of the case :

Miss Schutze, intelligent white young lady, aged twenty-two years, a native of Belgium and a resident of St. Louis, Mo., for the past fourteen years. Having developed pulmonary troubles last winter, sought some Southern climate for the benefit of her health. She reached Moss Point, Miss., about nine weeks ago, where she remained one week, and thence came to Ocean Springs. On Monday evening, August 30, she was taken sick with fever, headache, backache, pain in the joints and extremities. She did not go to bed, however. The pains increased on Tuesday and she was compelled to take the bed and send for a physician. She was seen that night by Dr. Bailey, who stated to me that her temperature was 104 deg. F. and pulse 120. On Wednesday she began vomiting mucus. I was informed by her nurse that on that day the fever had remitted at 12 o'clock during the day, and at about 1 o'clock the following morning the fever ranged from 101 to 101.8 deg. The urine was scanty and of a dark red color. On Saturday evening the vomiting began to be yellowish and jaundice of body was noticed. I saw her on Sunday, September 5, at 9 A. M. Although the patient was very nervous, she was not delirious; she consented to my taking some of her blood for examination and spoke to me in French about her condition. The nurse informed me that she had been delirious the night previous. Her temperature was 101 deg. F.; her pulse 72. Face and hands were of a yellow hue, conjunctiva congested, the edges of the tongue were scarlet tint, although tongue was coated in centre, the gums were of the same color and spongy; no diarrhea, bowels had acted the day previous; had not voided urine for the past ten hours; at 7 o'clock Sunday evening she was seized with convulsions, and died a few hours later.

Her urine when examined contained 40 per cent of albumin and bile, and showed microscopically red blood corpuscles, granular casts.

After a careful examination of the blood, I found the "*Plasmodium Malariae*" (quartan type). I showed them to Dr.

Wasdin, who fully agreed with me on this point. I wish to claim here the priority of having discovered the plasmodium in the blood of yellow fever patients.

By request of Dr. Haralson I made the autopsy in the presence of the following: Drs. S. Olliphant, Woods, Wasdin, Saunders, Haralson, Bailey and Gill. Necropsy eight hours after death, body of a fairly nourished female, rigor mortis well marked; conjunctiva, pale; eyes, golden yellow; body, jaundiced; hypostatic congestions observed around the neck, back and shoulders.

Left Lung adherent to chest walls, old adhesions; tubercles at base.

Right lung, adherent, cavities.

The pericardium was filled with normal fluid.

Heart, normal in size, muscular tissue indicated to the eye fatty degeneration.

Liver, pale boxwood color, normal in size, quite friable, easily torn; showed fatty degeneration.

Gall bladder filled with bile.

Stomach distended, contained about 3vi of black fluid. Extravasation of blood into the tissue of membrane, mucous membrane congested, vessels congested, serous coat of a yellowish tint.

Pancreas normal. The omental and peritoneal vessels congested.

The intestines, mucous membrane and vessels same condition as met with in the stomach.

Spleen normal in size and consistence.

Left kidney somewhat enlarged, somewhat softened. Cortical substance, yellowish tint; showed signs of fatty degeneration.

Right kidney normal in size, otherwise same as left.

Bladder normal.

The black vomit examined microscopically showed a considerable number of blood corpuscles and epithelium and disintegrated food. Also the streptococci (Sterenberg), which I have been able to cultivate on agar.

Microscopical examination of liver shows that the hepatic cells are almost completely hidden by fat globules.

Kidneys examined microscopically show the presence of fat globules in cells covering epithelial layer of glomeruli and also

in the uriniferous tubules. Some tubules are denuded of their epithelial lining. The description of these pathological changes I will postpone to some later day.

Cultures of blood made on agar from the case have developed the tetragonococcus, which Finlay describes as having found in the blood of patients suffering with yellow fever.

I wish to state before ending that in the near future I will be prepared to give detailed account of the researches which I am now making.

The Journal of the American Medical Association of September 25, page 660, briefly notices the death of Dr. Jno. H. Bemiss, but is in error on three points: Dr. Bemiss did not die on September 5, but on *September 2*; he was not 50 years of age, but 41, having been born in 1856; and he did *not* die of yellow fever.

A DETENTION CAMP has been organized by the Board of Health, to which healthy persons from infected houses are removed, as far as necessary and practicable; while their premises are being disinfected and put in a sanitary condition, those in camp are kept under careful observation and released only after it is evident that they have not been infected.

An isolation hospital also has been established by the Charity Hospital authorities to which the yellow fever indigent patients are removed. A large and airy public school, occupying the centre of an entire square of ground and surrounded by almost vacant squares, has been utilized. The move is excellent, as it avoids bringing the infection to the inmates of the Charity Hospital, who, with the Sisters, nurses, students and help, are about a thousand in number. The firmness of our Mayor in carrying out this wise plan, notwithstanding the threats and actual violence and arson resorted to prevent its consummation, deserves and commands general endorsement.

We would give a complete account of the above were it not for the large proportions this number has already assumed. Despite the fact that we have omitted the "departments" and the book reviews, the JOURNAL contains *thirty-eight extra pages*. We hope our readers will appreciate our efforts to give them a timely collection of articles on the absorbing topic.

N. O. Medical and Surgical Journal,

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

YELLOW FEVER SITUATION.

Early in the month of August an epidemic arose in Ocean Springs, Mississippi, which was recognized at the time as a hybrid fever, having characteristics of both dengue and malaria. For at least three weeks this fever spread, attacking all alike, until several hundred of the regular and the transient summer population had been more or less affected. Late in August one or two patients died, and the attention of the Louisiana Board of Health was called to the epidemic fever, which had not as yet been definitely called either dengue or malaria. The President of the Louisiana State Board of Health with Drs. L. F. Salomon and O. Czarnowski, of the Board of Experts, and Dr. G. F. Patton, secretary of the Louisiana Board, visited Ocean Springs, saw a number of these cases and reported the epidemic to be one of dengue fever. No danger of further developments was then apprehended. This report was concurred in by Dr. H. H. Haralson, member of the Mississippi Board of Health, and Dr. O. L. Bailey, a local practising physician. A few days later Dr. W. H. Saunders, health officer of Alabama, with some other physicians of his State, made an investigation and came to the same conclusion as the Louisiana and the Mississippi physicians.

When deaths became more numerous and information reached our board, from Louisville, to the effect that a patient at that place, hailing from Ocean Springs, had had black vomit, a second commission from the Louisiana Board went to Ocean Springs. The delegation was composed of the president, the bacteriologist, the chemist, the chief sanitary inspector and the shipping inspector. They arrived in time to obtain *post-mortem* evidence of the disease, which was now declared to be yellow fever, about ten days after first visit. At

the time of this visit there had been over 600 cases of the epidemic fever, with but twelve deaths.

Elsewhere the detail of the autopsy and the evidences of true yellow fever at Ocean Springs are related. The Alabama, Mississippi and Louisiana State Boards of Health were satisfied that there was yellow fever at Ocean Springs, and that decision was concurred in by the representative of the United States Marine Hospital Service then present. The subsequent arrival of Dr. John Guiteras, his confirmatory opinion to the extent of stating that dengue was prevailing, together with a few cases of yellow fever, and his reports to the Surgeon General of the Marine Hospital Service are now matters of history.

After the existence of yellow fever at Ocean Springs was determined, quarantine was established against the coast resorts at which yellow fever was suspected, or where it had occurred. This precaution came a few days too late, for the summer visitors, at the first alarm of yellow fever, took the first trains home and, for several days before the quarantine, many poured into New Orleans and to other places. On the Sunday preceding the declaration of quarantine against Ocean Springs, an excursion of hundreds of people was brought into this city. The result is apparent to all. The disease was brought in and developed, as was to be expected. New Orleans has never been as healthy altogether as for the past few months, or as it is now, barring the cases of yellow fever which have been thus far recorded. The disease has terrorized the panicky inclined, while the intelligent among the profession and the laity almost wonder at the reality of the diagnosis in the face of the comparative slowness with which it has made headway. Useless cruelty has been exercised in some of the quarantine systems adopted by neighboring States, and an utter disregard for intelligent sanitation has been evidenced by some of the cities establishing quarantine. The State of Mississippi has practically shut itself off from the world. Alabama has localized the disease in Mobile, where the cases were recognized reluctantly by the local profession.

At this moment, we can not look in retroflection or retrospection upon the whole situation—we must reserve our judgment for timely consideration. When the sky has cleared; when the regular course of occupation and of commerce is re-

sumed, we must discover from what starting point the present epidemic originated. This must not be done with a microscope nor with a telescope, but by following logical clues to a solution. For if the disease has found a foothold this year, it may find a foothold next year through the same leak in quarantine methods.

To Joseph Holt the State of Louisiana and the whole Mississippi Valley owe the past immunity for nigh twenty years from yellow fever. His methods of maritime sanitation have been followed by State Boards of Health in Louisiana since he established them. But while we have kept a guard at our front door, the disease has sneaked in from behind, because some carelessness has been exercised at some other port of entry—but where? Ship Island and the possibility of contagion through petty hucksters and pleasure parties going there have been suggested. Cuban refugees at Ocean Springs, meeting secretly, are by other speculators advanced as the authors of the epidemic. Mobile, in its desire for commercial gain, is said to have been loose in its quarantine against Central and South American ports, and that from there the disease must have started.

All these are but the suggestions to which the occasion has given rise, but that these are suggested is a certain reason why the *vera causa* must be discovered.

After twenty years of struggling, after a period of anxiety, then of progress, New Orleans has suffered at the hands of the alarmists, far more than she has from the disease, but the necessity for sanitation has been demonstrated by the recent methods of prevention and disinfection adopted since the appearance of yellow fever.

The Orleans Parish Medical Society has rendered invaluable service to the Board of Health by its prompt offer of assistance, its timely realization of precautions to be adopted, and by its preparation of plans for the proper sanitation, disinfection and quarantine of cases in their houses. It was not until this assistance was really accepted by the Board of Health that the necessity for these means was fully realized by the citizens at large. This is not yet the time to make provision for the future, but we are led to the opinion that the Orleans Parish Medical Society, representing the educated medical thought of New Orleans, deserves representation in official capacity on the Boards of Health in this State in the future.

Up to the time of going to press there have been 138 cases of yellow fever in New Orleans, although it is nearly three weeks since the first suspicious cases were discovered. There have been but 17 deaths during the same interval, making the apparent mortality barely 12½ per cent.

While we must admit the probability of the persistence of the disease until the occurrence of frost, many encouraging features lead us to believe that New Orleans will not suffer from an epidemic of any severity. The disease so far has been of a mild character. The number of cases have occurred chiefly from the establishment of numerous foci in rapid succession, owing to the scattering of people from the Ocean Springs district, and not by spreading to any extent from an original focus. Careful cleansing, disinfection, and sanitation of infected premises, together with isolation of patients, are being carried out by the State Board of Health and volunteer auxiliary committees of citizens. And, especially, cold weather is likely to come early. Sufficient frost first occurs here anywhere from early in November to the middle of December; but the warm weather commenced so soon this year—at the end of May—that we have reason to expect an early cold spell. The disease should be kept under control until then. When that happy time comes, our population, from health authorities down, must be made to realize that immunity for nearly twenty years possibly kept us from being sufficiently on the alert, but that *at no matter what cost*, NEVER AGAIN must we admit the infection.

COMPETITIVE EXAMINATION AT THE CHARITY HOSPITAL.

The death of the lamented Dr. J. F. Schmittle creates a vacancy among the resident surgeons of the Charity Hospital. In an editorial in our January number we made this statement: “The announcement that vacancies among the assistants are to be filled in the future after competitive examination will be hailed with delight by the medical profession; such a system is bound to redound to the public good.” This was relating to a resolution passed by the Board of Administrators of the Hospital saying “the next vacancy in the office of either assistant house surgeon shall be filled after competitive examination.”

The view taken by the board was further endorsed by a resolution passed at the meeting of the Charity Hospital Alumni Association last April, to the effect that "it highly endorses the system of competitive examinations contemplated by the board in filling the positions of assistant house surgeons."

It is only left to the board to act accordingly. They should, however, limit and fix the term of office of the house officers, and see that the examination is not only perfectly impartial, but practical.

On the present occasion there are two possibilities for their choice. They must either promote the second assistant surgeon and have an examination for a second assistant; or they can let the second assistant remain undisturbed and have an examination for the post of first assistant surgeon. If, in their opinion, the present second assistant is competent and desirable, the former seems the more logical view to take of the situation, as the procedure hereafter would regulate itself.

SMALL-POX IN ALABAMA.

In the September issue of the JOURNAL we commented upon the then prevailing epidemic of small-pox in Alabama, particularly referring to Montgomery and Birmingham. Relying upon the trustworthiness of an item in a reputable daily newspaper, we were led to the impression which dictated our editorial. Upon reliable information from a professional source, we judge that impression was misguided to a certain extent, and we are glad to offer an apology to the local profession of these two cities in Alabama upon whom our criticism and commentary were passed. However, while it might not have been "necessary to call in government assistance to determine the character of the disease," an expert *was* sent by Dr. Wyman to report on the situation. We can only emphasize our remark in the previous editorial relating to the necessity for an adjunct commission of experts on every Board of Health.

Medical News Items.

DR. C. J. BICKHAM, whose health had caused some concern among his friends a while back, has so well recovered that he has resumed general practice. It affords us sincere pleasure to make the announcement, as we realize that the doctor is indispensable to his large clientèle.

THE POSTPONEMENT OF THE OPENING OF THE SESSION at the Medical Department of Tulane is announced in our advertisement department. The decision is wise and we see no reason why in the middle of November the class should not be as numerous as it would otherwise have been.

NEW ORLEANS DOCTORS are returning from the annual summer respite. Among these are Drs. Chaillé, Fortier, Chassaig-nac, E. S. Lewis, Bloch, Martin and Archinard.

Among the absent ones are Drs. Geo. Lewis, Dyer, Bruns, de Roaldes and Cocram.

DR. C. J. GRÉMILLION, formerly interne of the Charity Hospital here, was united in marriage to Miss Ida Drouin, at Mansura, La., on September 2.

DR. E. C. POLLOCK was united in marriage, September 29, 1897, to Miss Juanita L. Sbisà, in New Orleans. Dr. Pollock is a recent graduate from Tulane, and the JOURNAL extends its best wishes.

AT THE SEPTEMBER MEETING of the Charity Hospital Board of Administrators, the announcement was made by the house surgeon, Dr. Bloom, that Mrs. T. A. Milliken had donated the sum of \$50,000 for the erection of a children's hospital. The plans have already been devised and it is expected that the addition of such a hospital will soon be made to the Charity.

THE TRI-STATE MEDICAL SOCIETY OF ALABAMA, GEORGIA AND TENNESSEE have issued a general invitation to physicians to attend their ninth annual meeting, to be held in the Senate

Chamber of the State Capitol, Nashville, Tenn., Tuesday, Wednesday and Thursday, October, 12, 13 and 14, 1897. Those desiring to read a paper, report a case or exhibit a specimen, will notify the secretary, Frank T. Smith, M. D., Chattanooga, Tenn.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION, meeting at Louisville, October 6, 7, 8, 1897, have announced a partial list of the papers to be read. The sessions will be held at the Liederkranz Hall, and the headquarters will be at the Louisville Hotel.

DR. GEO. TEBAULT died at Madisonville, La., on August 23. Dr. Tebault had resided for many years in Madisonville, where he was much esteemed.

DR. JNO. H. BEMISS died at Ocean Springs on September 2. Dr. Bemiss was the first president of the New Orleans Polyclinic, and was at one time editor of this journal. We will publish a biography of him, with portrait, next month.

DR. JAMES A. GREATHOUSE, a Tulane graduate of this year, died at Morganville, Ky., after a short illness, on September 5.

DR. JULIUS F. SCHMITTLE died, after a short illness, on September 20. He suffered from appendicitis, was operated upon, but succumbed notwithstanding. He was assistant house surgeon of the Charity Hospital and was beloved by its inmates. Last year he was Secretary of the Charity Hospital Alumni Association. He was just at the prime of life, and his death is much to be deplored. The family, and particularly his venerable father, Dr. J. Schmittle, have our heartfelt sympathy.

THE FIRST MEDICAL MARTYR to the yellow fever in New Orleans this year, Dr. Joseph M. Lovell, died on September 22. Dr. Lovell attended one of the earliest up-town cases and was stricken right after his patient recovered. Popular not only with his friends, but with the profession at large, as well as with his patients, he was the very image of brightness and good nature. A comparatively recent graduate, he had built up a nice practice and was a chief of clinic to one of the professors of the Polyclinic. He is universally regretted, and his afflicted parents have the sympathy of every one.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR AUGUST, 1897.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	4	6	10
“ “ Intermittent			
“ “ Remittent	3	1	4
“ “ Congestive.....	3	1	4
“ “ Typho	5	2	7
“ Typhoid or Enteric.....	12	6	18
“ Puerperal	3	1	4
Cancer	11	2	13
Influenza.....			
Measles			
Diphtheria	1		1
Whooping Cough			
Apoplexy	6	2	8
Congestion of Brain.....	14	2	16
Meningitis	7	1	8
Pneumonia.....	7	3	10
Bronchitis	6	1	7
Consumption.....	37	32	69
Bright's Disease (Nephritis)	16	8	24
Uremia			
Diarrhea (Enteritis).....	17	7	24
Gastro-Enteritis	5	1	6
Dysentery.....	1	1	2
Hepatitis	3		3
Hepatic Cirrhosis	2	3	5
Peritonitis.....	2	3	5
Debility, General		1	1
“ Senile	13	8	21
“ Infantile.....	2	1	3
Heart, Diseases of	21	13	34
Tetanus, Idiopathic			
“ Traumatic	3	3	6
Trismus Nascentium.....	8	8	16
Injuries	14	4	18
Suicide	5		5
All Other Causes	80	45	125
TOTAL	311	166	477

Still-born Children—White, 33; colored, 17; total, 50.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 19.14; colored, 24.90; total, 20.88.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.04
 Mean temperature

Mean temperature

Total precipitation..... 3.12 inches

Prevailing direction of wind, southwest.

November, 1897:

*Paullum sepultæ distat inertie
Cælata virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

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NOVEMBER, 1897.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

THE TREATMENT OF RETROFLEXION AND RETROVERSION OF THE UTERUS.

BY THOS. MORE MADDEN, M. D., F. R. C. S., ED.;

M. A. O. (*Honoris Causa*) Royal University; Obstetric Physician and Gynecologist, Mater Misericordiæ Hospital; Consultant and ex-Master Lying-in Hospital, Dublin; Consulting Physician Hospital for Children; ex-President Obstetric Section of British Medical Association and of the Academy of Medicine, Ireland; and Vice President British Gynecological Society.

The object of the treatment of retro-displacements of the uterus being to replace and retain the womb in its normal position, the steps to be taken for this purpose must be regulated, not only by the form of dislocation, but also by its cause, extent, and duration, and the actual condition of the uterus as to disease or pregnancy in each instance.

Thus, if the displacement be due to the pressure or traction backward, as the case may be, of an uterine fibro-myoma, or of an ovarian or other intra-peritoneal tumor, it is useless to attempt, and vain to expect, any permanent reposition of the dislocated organ until these causes have been removed. In like manner, in the more frequent complications of retroflexion and retroversion with endometritis, or subinvolution, our primary attention should be given to the treatment of these morbid conditions.

MODE OF REPOSITION.—In the latter case, when the bulk and tenderness of the displaced uterus have been sufficiently diminished, we may attempt to replace and retain the womb in its

normal position. In the majority of instances the first object may be obtained without recourse to the use of the sound or any other intra-uterine repositor by the proper use of that best of all instruments, viz. : the surgeon's hand, aided by the position of the patient, who in such cases should be placed in the genu-pectoral posture, when (the rectum and bladder having been previously emptied) the index and first finger of the practitioner's left hand should be passed into the rectum, from which the retroflexed or retroverted fundus should be firmly and gradually pushed forward and upward, while at the same time with the corresponding fingers of his right hand the cervix should be pressed downward and backward into the sacral concavity, so as to occupy the place from which the fundus is lifted up.

Should the displacement be chronic and marked, and more especially in the backward dislocations of the gravid state, its dislodgment from the abnormal position may be greatly facilitated by the use of Duke's repositor. In such cases this instrument which resembles closely the upper arm of a large Hodge pessary attached to a long handle should be passed up into the posterior vaginal cul de sac, when, by drawing the handle well back against the perineum and making steady gentle pressure upward and forward, it can exercise such leverage on the fundus uteri as to overcome the displacement.

In some exceptional instances, however, the dislocation is of such extent or of such long endurance, or so bound by adhesions in the abnormal position, as not to be removable by the procedure just described ; the deviation may require more gradual rectification. For this purpose a stout India rubber bag should then be introduced up into the rectum and slowly distended with air or tepid water to the fullest amount of expansion, and retained as long as it can be tolerated, which will seldom be for more than six or eight hours at a time, during which the patient should remain in the genu-pectoral posture if possible until the removal of the bag from the rectum, on which the malposition will generally be found redressed.

As I have a penchant for referring to the history of gynecologic methods, more especially when—as in this instance—credit belongs to a forgotten Irish surgeon, I may mention that the plan of treatment just referred to was originally suggested and described upward of fifty years ago in the old Dublin *Quarterly*

Medical Journal, by Mr. Halpin, of Cavan. In a case where all other means had failed to replace a retroversion “it suddenly occurred to me,” says Mr. Halpin, “that with the assistance of a bladder, I should be able to inflate the pelvis, and thus raise its contents into the abdomen. We acted on this suggestion. I attached a small recent bladder to the tube of a stomach-pump, with an air-tight piston, and having immersed it for a few moments in warm water to bring it to the heat of the body, I introduced it empty into the vagina, between the fundus of the uterus and the rectum. Retaining it within the vagina by holding my hand firmly across its orifice, Dr. F. inflated it slowly and steadily. After a time she complained of tension or bursting, but no pain.

We then ceased throwing air into the bladder, allowing what was in already to remain, keeping up, as it did, a steady, equal, well-directed pressure in the tumor. After the expiration of five minutes we threw more air into the bladder, when the patient exclaimed slowly, ‘Oh, now you are forcing something up to my stomach!’ I retained the bladder some time longer in its situation, and then, previous to withdrawing it, permitting the escape of some air, I introduced my finger, and had the satisfaction of finding that the tumor was no longer in the pelvis, and that the os uteri lay within reach of my finger, pointing downward and backward. I then, and not till then, removed the apparatus.”

REPOSITION BY INTRA-UTERINE INSTRUMENTS.—It may possibly have seemed an omission that in the foregoing remarks I have not referred to the method most commonly advocated for the replacement of the uterus in cases of retroflexion and retroversion, viz.: the employment of the sound or some similar instrument as a repositor. My reason, however, for not earlier alluding to this point is that while fully recognizing the value of the sound as an aid to diagnosis, I regard this instrument as a *dernier ressort* as a means of treatment in these cases, having myself found any intra-uterine appliances unnecessary for the successful treatment of the vast majority of instances of retroflexion, and being cognizant from what I have seen from their use in the hands of others of the ill effects that occasionally result from the abuse or injurious employment of such instruments in the causation of pelvic cellulitis or perforation

of the uterine walls. In cases of retroversion I can conceive no circumstances that call for the use of any intra-uterine repositor. At the same time I believe that in some exceptional instances of retroflexion the sound may possibly be used with advantage provided it be employed in suitable cases and in a suitable manner, viz. : with extreme caution and gently guided, not forced through the curvature of the cervical passage, and for this purpose the cervix should be drawn down on the sound by traction from below with volsella, rather than that any violence be used in pushing the instrument into that canal. Moreover, as the ordinary sound, when used as a pivot on which to rotate a flexed uterus, is very liable to penetrate the uterine walls, it would be, I think, much better in those exceptional cases in which it may be necessary to resort to any mechanical intra-uterine help for the reposition of a retroflexion, to select an instrument with a stop or shoulder, such as Sims' repositor or my own adjustable combined sound and curette, with neither of which could such an accident occur, and by the latter of which the intra-uterine portion of the instrument may be directed in any required direction by the screw adjustment worked from the handle.

USE OF PESSARIES IN RETROFLEXION AND RETROVERSION.—Having thus effected the replacement of the retroflexed or retroverted uterus to its normal position, we have next to consider the means by which recurrence of the displacement may be obviated, viz. : first, mechanical support, or pessaries; and, second, certain operative procedures now advocated for that purpose. With regard to the former it is of primary importance that not only should the support selected be specially adapted in form and size to the case in which it is employed, but also that its material, as was recognized even in bygone pre-aseptic days by Clarke and others, should combine firmness, lightness, and closeness of texture—firmness that it may not yield to pressure, lightness that it may not incommode by weight, and closeness of texture that it may not absorb the secretions of the vagina. Pessaries made of vulcanite possess all these advantages, and can, moreover, be extemporaneously moulded to any required shape by a few moments' immersion in boiling water.

The next best material, viz., aluminum, though equally light and aseptic, can not be thus adjusted, while the block tin and

copper pessaries frequently employed, however coated, are speedily corroded by the vaginal secretions; and lastly, gutta percha and India rubber covered pessaries, used by many practitioners, should be entirely disregarded, as, after being for a short time in the vagina, they become more or less disintegrated, and unless daily removed and cleansed, are eventually converted into abominably foul and fetid nests of sepsis.

As to the form of pessary most suitable for the treatment of retro-displacements, there are nearly as many opinions as there have been writers on this subject. It would, therefore, be a waste of time to attempt any account here of the countless varieties of this instrument. With regard to those of them in which the *point d'appui* of the support is external to the vagina, I have only to say that they are mentioned not for your adoption, but as instruments which, however ingenious, surgeons will do well to avoid.

Of the vast number of pessaries which are now available in these cases probably the most generally serviceable, and certainly the simplest and cheapest, is a plain vulcanite ring of whatever size and thickness may be required, which can be readily converted, in the manner before described, into almost any desired form, including that of the latter pattern of the instrument which has made the name of Dr. Hodge, of Philadelphia, "familiar as a household word" in every land. Of the various modifications of the original Hodge or lever pessary now in use, like other gynecologists I prefer one which, in accordance with my own suggestion, has been recently introduced by Messrs. Arnold, of West Smithfield, London, namely, "The Roller Pessary," designed for the treatment of posterior displacements of the uterus, and also for those less generally recognized though not less important instances of ovarian displacement or prolapse into Douglas' fossa that are so commonly met with.

The advantages claimed for this instrument are: First, greater facility of introduction, which, in the roller pessary, is favored by the rotation of the upper arm of the support; secondly, more certainty of filling the cul de sac, and so overcoming the tendency to descend of the replaced organs; thirdly, the obviation of the pressure troubles frequently occasioned by the pessaries ordinarily employed; and fourthly, that the new pess-

ary affords no fixed shelf for the lodgment of discharges or septic matter.

Besides these points, which, as I claim, are thus gained in this form of uterine support, there is, moreover, another, and, as I think, a still more important advantage connected with the rotatory movement of its upper arm, namely, greatly diminished risk of the pessary slipping.

As every gynecologist is aware, in nine cases out of ten that accident arises from the expulsial efforts of the patient to dislodge a mass of hardened feces from the upper rectum. In the instrument now referred to this displacement is prevented by the roller action, by which the pessary is made to travel slightly upward instead of being forced down, as in other pessaries, by the fecal pressure through the recto-vaginal wall.

METHOD OF APPLYING PESSARY.—Taking the Hodge pessary, or my modification of that instrument, as an example, and promising that you adhere to the lever theory of its action, I have now to point out the manner of employing that instrument. For this purpose, having first placed the patient in the usual left lateral semi-prone position; next open the vaginal orifice with your left index finger, and draw the fourchette well back, then holding pessary by lower or narrower end between your right forefinger and thumb, pass upper arm of instrument obliquely through vaginal orifice, guiding it upward and backward in direction of axis of the canal and taking care to pass it well behind the cervix until safely lodged in posterior vaginal *cul de sac*. The convexity of the upper curvature will then look forward, and the distal extremity of the appliance rest lightly over the symphysis pubis without any pressure on the vesical neck. If that be produced the instrument is too long, and should be immediately withdrawn and replaced by one more suitable.

When thus properly adjusted, a well-fitting pessary effectually prevents any recurrence of the retroflexion or retroversion. Moreover, so long as it remains *in situ* it should occasion no vesical trouble or any difficulty in marital intercourse, but, on the contrary, afford a sense of support and comfort to the previously suffering patient. Such a pessary may be left undisturbed for a month or six weeks, when it should be removed, well cleaned and then, if necessary, replaced, or be substituted

by a more curved pessary until the displacement has been permanently overcome. With reference to stem pessaries, which are employed by some practitioners in these cases, what I have already observed concerning their dangers in cases of ante flexion, in which their use is occasionally necessary, applies still more forcibly to their misapplication in retro-displacements, in which such instruments should never be resorted to.

Before leaving this subject a very brief allusion may be made to the operative treatment of retroversion and flexion, a subject of much importance, the fuller consideration of which must be reserved for another lecture.

OPERATIVE TREATMENT OF RETRO-DISPLACEMENTS.—In the foregoing observations I have now described the method by which retroflexion and retroversion of the uterus may, generally speaking, be most readily rectified, and also the means by which, as I have found, a recurrence of such displacements may in the great majority of cases be effectually obviated. These results, sufficiently satisfactory as they would seem to me, are not so regarded by some gynecologists, who, not merely in the exceptional cases in which the palliative measures just referred to are inapplicable or prove useless, but apparently as a general rule of practice, advocate more heroic surgical procedures for the radical cure of the displacements in question. The operations thus suggested for this purpose are based on one or other of two distinct principles, viz. : either (1) the restoration of the natural ligamentous supports of the uterus, as exemplified in Alexander's operation for shortening the round ligaments, or (2) the creation of new supports for the organ by ventral fixation of the fundus.

For the latter object two methods have been suggested, namely, ventral fixation by laparotomy operation, the fundus being thereby immovably sutured to the abdominal wall, and, secondly, another procedure for the accomplishment of the same design without laparotomy, by vaginal hysterorrhaphy, or passage of a suture from the uterine cavity through the fundus and abdominal parieties so as to procure the adhesion of the parts.

The details of the first mentioned of these operations may be here briefly summarized from the writer by whom it was originally prepared, namely, Dr. Alexander, of Liverpool.

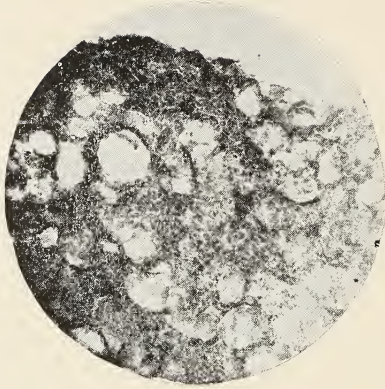
To carry out the proceedings with which his name is con-

nected, the patient, having previously had her bladder and rectum emptied, is to be placed on the operating table and anesthetized. The pubis must be shaved and the operation commenced by an incision from the pubic spine upward and outward, from one to two inches in length, in the direction of the inguinal canal, which incision is deepened until the tendon of the external oblique muscle is reached. The fibres crossing the internal abdominal ring are then divided in direction of the inguinal canal, on which a characteristic reddish tissue mixed with fat bulges out. This is the end of the ligament before it spreads out on the mons veneris. Under this fatty mass an aneurism needle is now passed so as to raise it from the canal, whence it may be gently drawn out.

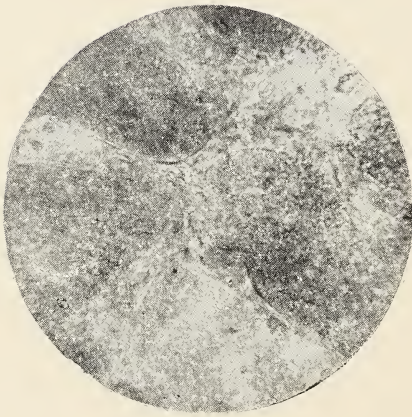
The attachments of the ligaments being in this way exposed, are together with the accompanying nerve cautiously separated, on which the whole of the white fibrous structure of the cords then becomes evident, and may be easily pulled out until they are felt to control the uterus, which meanwhile is to be maintained by an assistant in the proper position by the sound.

The ligaments thus pulled out are secured by fine silk, silace or catgut suture to the pillars of the external abdominal ring and edges of the wound, into which a short drainage tube is passed to prevent any collection therein. The chafed parts of the slack of the ligaments may now be cut off, the bleeding ends ligatured and the remainder stitched into the wound by means of the two sutures that are generally sufficient to bring the edges of the wound together.

The foregoing brief abstract of the steps of Alexander's operation, of which a fuller account may also be found in the last edition of Dr. Macnaughton Jones' excellent "Manual of Gynecology," is here cited, inasmuch as the operation in question is one largely favored by some eminent authorities. From my own experience, however, I am convinced that the cases of retrodisplacement in which its performance is absolutely necessary are few and far between. Moreover, I am strongly inclined to believe that even in those cases in which its immediate results have been successful, the displacement thus relieved will remain liable to recur after some time. For as these displacements, generally speaking, result from causes such as uterine tumors or hypertrophic conditions of the fundus uteri, which are not



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1. HISTOLOGIC SECTION OF LIVER (GELPI CASE).—High power, $\frac{1}{5}$
2. BACILLI IN CAPILLARIES OF KIDNEY (GELPI CASE).— $\frac{1}{2}$ oil immersion.

remedied by that operation, however shortened the round ligaments may be, they must in all probability ultimately again become stretched and elongated by the same cause, just as an India rubber cord would be under similarly persistent traction. This opinion is strongly corroborated by the clinical experience of Polk, who having reported fifty-two cases, considers that in extreme cases of retroflexion with prolapse and tender ovaries, benefit is usually only temporary.

Lastly, with regard to operations such as vaginal hysterorrhaphy and ventral fixation by abdominal section, or hysteropexy, I can only say that in my own experience I have never yet met with any of those urgent symptoms arising from otherwise unrelievable retro-displacements of the uterus on which the supposed necessity for such procedures is based. Nor, indeed, can I conceive circumstances under which, in such cases (as long at least as I may be spared any sense of regard for the interests of those entrusted to my care and the dictates of common sense), I would recommend operations so grave, and, generally speaking, so uncalled for, as those last referred to, merely for the relief of retroflexion or retroversion.

AN IMPORTED CASE OF YELLOW FEVER—DEATH.*

BY SIDNEY L. THÉARD, A. M., M. D., NEW ORLEANS, LA.

MY RELATION IN THE CASE TO THE PUBLIC AND PATIENT.—The early symptoms were misleading; they fitted other conditions as well, possibly better, and I did not at the outset suspect, nor could I reasonably be expected at the time to suspect, the possible existence of yellow fever, a disease which had not visited us in nineteen years. With the appearance of the black vomit I grew suspicious, but even this is not a pathognomonic sign. When jaundice set in I reported the case to the Board of Health. Three yellow fever experts were delegated to consult with me, and their verdict was that while the case strongly resembled yellow fever in many and most particulars, it lacked some of the usual symptoms, and in their absence they would rather believe the case to be one of malarial hemorrhagic fever, the only other condition capable of presenting similar symptoms,

* Read before the Orleans Parish Medical Society, September 18, 1897.

and my original diagnosis in the case. I then taxed the microscope for a positive diagnosis. Over three hours were spent by Dr. Pothier, our able bacteriologist of the Charity Hospital, and myself in a futile search for typical malarial organisms in the patient's blood, and failing to find any, my suspicion of yellow fever crystallized into a strong conviction which up to the time of my little patient's death was unshaken. An autopsy held by Drs. Pothier, Touâtre, Solomon, H. Olliphant, Parham and myself, confirmed beyond question the diagnosis of yellow fever.

Pending a post-mortem investigation the following telegram had been sent by me to Dr. S. R. Olliphant, president of the Board of Health, then at Ocean Springs investigating the prevailing fever:

“ *Dr. S. R. Olliphant, Ocean Springs, Miss.:* A case from Ocean Springs just dead, presented symptoms suspicious of yellow fever. Will hold autopsy to-day and report to Board of Health office. Probable diagnosis of yellow fever.

“ *New Orleans, La., September 6, 1897.*”

CLINICAL HISTORY.—On Sunday, August 29, 1897, Raoul Gelpi, white, aged 13 years and seven months, returned to New Orleans, his birthplace and home, with fever contracted at Ocean Springs, where he had been spending a fortnight or so. Upon his arrival he was given household remedies—a mild laxative, I understand, and a few grains of quinine. On Tuesday morning he was, by the thermometer, free from fever and feeling quite well; he spent the day outdoors, eating plentifully, drinking soda water and walking a good deal. At 5 P. M. the fever returned, the thermometer registering 104 deg. F. At 10 P. M. I was called in.

At the time of my first visit, and during the thirty-six hours that followed, there was nothing very distinctive in the symptoms; they were those of a febricula, no more. Many and most characteristic symptoms of yellow fever, however, did develop as the disease progressed, and this in close succession. In fact from Thursday morning up to the time of death the march of the disease was characteristic.

There were at first the red eyes and congested capillaries, which, with the peculiar appearance of the tongue and the intensely red throat, might have suggested to the beginner or to

the inexperienced a diagnosis of scarlet fever. Then came, epigastric tenderness, black vomit, epistaxis, slowness of the pulse, coldness of the extremities, yellowness of the conjunctivæ and skin, and still later great diminution and finally suppression of urine, restlessness and delirium, the disease finally ending in death from uremic convulsions and coma.

The vomiting consisted at first of bile and mucus. It was not very severe; even the typical black vomit being ejected at first only two or three times in the twenty-four hours, and this with some amount of retching. Only near the close of the disease was the emesis incessant and of the projectile type.

The pulse was never above 100, and at one time when the thermometer registered 102 deg. F., the pulse was 68 a minute.

The jaundice was not very intense except near the close of the disease, when it increased markedly. It persisted, still more marked, in death.

PATHOLOGICAL HISTORY—Notes from the Autopsy.—General appearance: whole body of distinct lemon-yellow color; ecchymoses generally, more marked over the posterior half of the body; conjunctivæ also distinctly yellow; bloody froth oozing from the mouth and nose; liver yellowish in tint and showing distinct signs of fatty degeneration. Kidneys: both very much congested and enlarged, distinct degeneration, though slighter than in the liver; both quite hemorrhagic on section. Spleen: not enlarged apparently, but showing signs of degeneration. Stomach: mucous lining much congested and swollen, and cavity containing bloody fluid thicker than that coming from the mouth.

REPORT OF DR. O. L. POTHIER, PATHOLOGIST AND BACTERIOLOGIST, CHARITY HOSPITAL.—I beg to report as follows on microscopical examination of organs from autopsy on body of Mr. Gelpi. Liver: found liver cells undergoing fatty degeneration; in areas of section this degeneration was very marked, leaving area almost totally unstained and contrasting markedly with surrounding tissue less diseased. Many of the blood vessels were still filled with blood. Kidneys: almost all of the renal epithelium was degenerated, though this was more marked in some areas; the epithelial cells were markedly granular, staining badly everywhere, the nuclei in some barely visible, the whole cell appearing occasionally as a mass of granular matter; some of the tubules were occluded with this material. Spleen:

marked increase in lymphoid element; areas of fatty degeneration also found, but this degeneration seemed more localized to different areas, while surrounding tissue in immediate neighborhood appeared healthy. Stomach: except for the extravasation of blood in the coats of the stomach, especially in part of mucous membrane near glands and between them, and for the brownish discoloration at surface of mucous membrane, there was no inflammatory and degenerative change.

The urine, not enough for specific gravity, contained 10 per cent. moist albumin, hyaline and finely granular casts, leucocytes, epithelium from kidneys and from bladder, red blood corpuscles, urates, bacteria, spermatozoa. Reaction, acid.

Examination of the blood revealed nothing save crenation and degenerative changes of red blood corpuscles.

I have found in the capillaries of the kidneys short bacilli resembling the description given by Sanarelli of his bacillus icteroides and by Sternberg of his bacillus X.

I enclose photomicrographs of these bacilli and of the microscopical appearance of the kidneys and liver. (*See cuts*).

For this and other valuable assistance in the case I am much indebted to Dr. Pothier.

TREATMENT.—Calomel and soda and a purgative lemonade to open the bowels freely. Antipyrin at the outset for the persistent hyperpyrexia, followed later in the disease by cold sponging of the head and the extremities. Liquid Peptonoids and milk while the vomiting was moderate; nutritive and stimulating enemata when the vomiting became incessant. For the vomiting: cracked ice, counter-irritation over the epigastrium, and, later, normal liquid ergot (P. D. & Co.) hypodermically. The uremic symptoms were treated by the hot bath.

Antipyrin was used at the outset, before a diagnosis of yellow fever could be made. It acted beneficially.

Taken in moderate doses at the outset of yellow fever antipyrin should be productive of much good, reducing the temperature and allaying the initial pains, often so severe. Repeated unnecessarily in the face of recurring manifestations of hyperpyrexia, with a view to lower the temperature persistently, it may be productive of much harm, increasing the tendency to blood-stasis, weakening the patient and locking up the urinary secretion.

In the present case it reduced the temperature markedly, the temperature remaining low thereafter, and it prevented entirely the usual pains and aches of the disease. By its local anesthetic and hemostatic action I believe it helped the condition of the stomach, the emesis being least while antipyrin was being used.

DIAGNOSIS.—The difficulties in the way of a correct diagnosis at the beginning of an epidemic are well known. Upon this all writers insist. The severe cases may closely simulate malarial hemorrhagic fever; the mild cases may be mistaken for simple dengue. The access of the disease and the symptoms during the febrile or first stage present nothing very distinctive (Flint), so that at the outset, especially in sporadic and imported cases, a positive diagnosis may be impossible.

Recent events clearly bear this out, as the following facts will show:

1. Physicians in infected localities along the gulf coast and elsewhere did not at the outset recognize the true nature of the disease.

2. Able, conscientious and painstaking physicians failed to recognize yellow fever in the Gelpi boy at an advanced stage of the disease, a view which subsequent developments and the autopsy forced them to modify.

3. It is now generally admitted that young Gelpi's case was preceded in New Orleans by at least two other cases, one of which ended in death.

4. Repeated examinations were deemed necessary by the board of experts in suspicious cases before a positive diagnosis would or could be expressed.

5. Typical and severe yellow fever was contracted by the attending physician from a case that left consulting physicians in doubt as to its nature.*

POINTS OF SPECIAL INTEREST.—The present case offers several points of interest:

- (a) It is the first authentic case in what threatens to become an epidemic of the disease.

- (b) It attacked a Creole.

- (c) There was no initial chill, the cold stage being inappreciable.

*Dr. Jos. M. Lovell, the talented young physician, to whom allusion was made in this paper, died September 22, 1897.

(d) The febrile paroxysm was unusually mild, ending in two days under the use of simple household remedies.

(e) After the febrile paroxysm there was not simply a remission but a distinct intermission, the stage of calm corresponding here to complete apyrexia. No doubt, with reasonable rest and restricted diet convalescence would have been established at once. Overexertion, imprudence in diet and exposure to the sun, brought about a relapse and forced the fatal issue.

The fever seems so far to have selected persons under nineteen years of age—that is, persons born since our last epidemic and older persons who have not long been residents of the city. Now, as always, Yellow Jack knocks with greatest force at the door of the unacclimated.

PERFORATING ULCER OF THE FOOT.*

By L. L. CAZENAVETTE, M. D., NEW ORLEANS, LA.

In 1852, Nélaton wrote of an *Affection Singulière des Os du Pied*. Vésigné followed in an article entitled *Mal Perforant Plantaire*.

These two agreeing upon the clinical characteristics of the disease, differed in their opinion as to the pathology. Nélaton believed it an affection limited primarily to the bones, and subsequently involving the soft parts; whereas Vésigné thought the principal lesion was situated in the soft parts.

Three years later Leplat in his *Thèse de doct. de Paris*, 1855, gave it the name of *mal perforant du pied*, by which it is now known. He held that the pathologic process might involve the osseous as well as the dermal and subdermal tissues.

The early French surgeons who had been struck by the progressive and rebellious nature of this affection were also impressed with the necessity for vigorous interference in order to effect a cure, and were therefore led to more persistent efforts in discovering its true etiology and pathology.

Vésigné considered the affection analogous to plantar psoriasis. Leplat believed it due to purely local and mechanical causes. Dr. Humphrey, quoted by Savory, proposed the presence of a simple corn as an explanation.

*Thesis for graduation, Medical Department of Tulane, 1897.

These opinions were proved erroneous from the fact that perforating ulcers occurred not uncommonly, on patients who were compelled to lie in bed and on paralytics using crutches.

As in a large percentage of cases chronic alcoholism accompanies perforating ulcer, and as alcoholism is frequently associated with arterio-sclerosis and its consecutive nutritive disturbances, Péan, Delsol and Montaignac argued a vascular theory, dependent on chronic arteritis. This was insufficient to account for many cases in which chronic arteritis was not present.

Owing to the frequent occurrence of similar ulcers in the anesthetic form of leprosy, Dr. Duka, quoted by Savory, Poncet and Estlander, was led to the belief that these conditions were analogous. Poncet first drew attention to the nervous origin of this affection, because of the invariable presence of anesthesia. Estlander, however, went so far as to assert that all cases of perforating ulcer were due to leprosy. Such a broad statement is understood from the fact that he has met with innumerable cases of leprosy, in many of which perforating ulcer was a complication.

Duplay and Morat, after careful observations in six fatal cases, proved beyond doubt that the true pathologic lesions resided in the nervous system. These consisted of a degeneration of the nerve fibre, including the axis cylinder, accompanied with an inflammation of the connective tissue sheath; a true peripheral neuritis, and were found at the site of the inflammatory process and higher on the extremity for a considerable distance. Lesions of the central (encephalic) nervous system, of the spinal cord, and of a nerve trunk have been demonstrated as causes of these changes.

Subsequent to this discovery many confirmatory cases of perforating ulcer, with lesions traceable to the nervous system, have been reported.

Tabes dorsalis has been observed to be a very frequent cause. What is noteworthy is that in many cases the ulcer precedes by years any tabetic symptoms.

H. M. Moyer reported a case of perforating ulcer in connection with tabetic foot, and calls particular attention to the time of appearance of the ulcer. He says: "The longest time noted by Hinze in which the ulcer preceded the tabes was ten years. It will be seen that in the case under consideration this length of

time has been exceeded, some twelve years having intervened between the appearance of the perforating ulcer and the first symptoms of tabes." No satisfactory explanation has ever been given for the delay of the tabetic symptoms or for the antecedent existence of the ulcer. Were it not for the fact that these two conditions frequently accompany each other, and that at times the ulcer followed the tabes, such a relationship could not be entertained.

Christian and Berthélémy have insisted on the paralytic condition associated with alcoholism as being the most favorable for the development of perforating ulcers.

Diabetes has been mentioned by Kirmisson as a cause, and it may at least be considered a predisposing cause, for cases have been cured by treatment directed to the diabetes. The nerve lesion present in these cases is local rather than central and consists in a peripheral neuritis.

The consensus of opinion of modern pathologists in reference to the etiology of perforating ulcer is, then, that it is based, in nearly all if not all cases, on some disturbance of the nervous system, and that this lesion is of a trophic character, hence the name as often applied, "trophic ulcer." Trauma, pressure, atheroma, etc., no doubt play a part in the production of this affection, but these are only accessory exciting causes.

The treatment heretofore adopted for the cure of perforating ulcers appears to have been limited to rest, antiseptics and other palliative measures. These means failing, amputation has been frequently resorted to. Even this was not always radical; not infrequently an ulcer returned at the end of the stump, necessitating a further amputation.

With this introduction, I desire to report a typical case of perforating ulcer of the foot, which will demonstrate the modern surgical treatment of this rebellious condition.

On July 17, 1896, SAMUEL W., a negro 29 years old, was admitted to Ward 1, Charity Hospital; formerly brakeman on freight trains, now barber; single. Good ancestral and personal histories.

In 1888 received a gunshot wound in the back. A 38-calibre ball entered on a level with the right eleventh rib, one and one-half inches from the median line. He fell and, on attempting to rise, realized that he had completely lost control of the lower

limbs. The next day he was taken to the hospital. Complete paraplegia of the lower extremities was marked; paralysis of the bladder, necessitating catheterization, soon became apparent. Acute symptoms of cystitis were early manifested. The patient suffered agony for a week, and had high fever. The penis became very much inflamed, edematous, the meatus everted, and a membranous structure was extruded. This was secured, extracted and found to be a complete membranous cast of the bladder, with one opening—that of the urethra. A few months later the patient left the hospital, slight paralysis of the right leg remaining.

On February 17, 1897, nine years after the accident, the functions of bladder and rectum are impaired. As a rule, he experiences little necessity for emptying these organs, but urinates when the bladder has been greatly distended; uses frequent enemas. Two parallel lines, extending from the gluteo-femora crease to the plantar surface of the foot, drawn at a distance of $1\frac{1}{2}$ inch on either side of the great sciatic, internal popliteal, and posterior tibial nerves, will limit the area of impaired sensation on the posterior surface of the right lower limb. The other portions of that limb have perfect sensation, with the exception of the plantar surface of the foot; sensation there is greatly impaired. Motion in every part of the limb is perfect. There is some atrophy of the leg and thigh muscles.

The ball, never extracted, and whose course has never been ascertained, must surely have injured some point of vital importance in the spinal cord, the bladder and rectum being affected. From the area of impaired sensation, we may conclude that the inflammatory process set up by the ball must have been in the segment between the eleventh and twelfth vertebræ, the products of which now interfere with the transmission of external impressions to the sensorium.

In 1892, four years after his spinal injury, while working on a freight train, fearing a collision, he jumped to the ground and pierced his right heel with a spike; according to his statement, it entered fully one inch. A few days afterward he applied for treatment at the out-clinic of the Charity Hospital. The irregularity of attendance and neglect resulted in a local ulcer. The inconveniences of this ulcer rather than pain decided him to abandon his occupation and go to the hospital. Just after his

admission he was stricken with small-pox; was sent to the pest house, where he finally recovered, being readmitted to Ward 1, as above stated.

As only the history of traumatism was given, the ulcer was treated as a simple traumatic one. Thorough antisepsis and asepsis, with rest, were the features of the treatment. The ulcer did not improve. It increased in depth rather than in surface. This argued that the true cause had not been determined, for such an ulcer, due solely to bacterial contamination (no diathesis or dyscrasia present), treated as it had been with antiseptic care, and rest in the recumbent position, would have healed in a short space of time.

Upon further interrogations the patient related the history of his spinal injury.

The ulcer of five years' standing was situated on the right plantar surface, its posterior margin being about an inch from the end of the heel. It was irregularly circular and about $1\frac{1}{2}$ inch in diameter. Its surface was sunken well beneath its borders, which, thickened and indurated, overhung the surface of the ulcer, causing it to appear smaller than it was in reality; callosity was a prominent feature. As previously stated, insensibility was marked all over the plantar surface of the foot. The diagnosis of trophic ulcer was made.

Dr. Matas, surgeon in charge, decided to try total extirpation of the ulcer with the view of reaching healthy tissue, to be immediately covered with Wolfe's grafts. The area of operation was duly prepared.

Operation.—The indurated borders of the ulcer were excised down to sound tissue. When the surface of the ulcer was exposed it was found that a part of the calcaneum had been affected in the ulcerative process. This was curetted until healthy bony tissue was reached. The surface to be grafted, consisting of soft and bony tissue, measured $2\frac{1}{4}$ inches in diameter and one inch in depth. The constricting band removed, the hemorrhage indicated that the vascular supply on the surface was ample for the nourishment of the grafts. These were taken from the left thigh and as suggested by Krausse. By cautiously excluding all subcutaneous fat, the grafts consisted of the entire skin. All manipulations were made with the fingers in order to avoid devitalizing the tissues. Care was taken not to allow any

antiseptic solution to touch the surfaces to be brought in contact, lest their vitality be interfered with.

The grafts were placed on the denuded surface and kept in that position by strips of rubber tissue, covered by aseptic gauze and sterilized absorbent cotton. After the thigh wound had been stitched and dressed, the patient was put to bed and the limb immobilized by splints.

Five days after, the dressings were removed. The usual desquamation of the epidermis of the grafted skin was found to have taken place, but the grafts were adherent. The wound was dressed anew and dusted with calomel and bismuth. There was observed at the third dressing some contamination with the *bacillus pyocyaneus*. Rigorous antiseptics, with peroxide of hydrogen and carbolic acid solutions, caused the blue pus to disappear.

On January 15, two months after the operation, there remained two uncovered areas of granulations, each scarcely exceeding a quarter of an inch in diameter.

On January 27, it was thought advisable to cover those granulating surfaces with grafts like the preceding, after the same preliminaries. On account of the impairment of sensation on the right thigh, the grafts were again taken from the left.

The surfaces to be grafted after denudation were triangular in shape, with their apices in the centre of the old ulcer, extending to the bone, and measured about five-eighths of an inch at their bases.

The grafts were cut a third larger to make allowance for contraction. Severe oozing of the denuded surfaces was arrested by elevation of the limb; the grafts were adapted and secured by means of sterilized gauze and bandages.

Six days later the wound was dressed. The epidermis on one graft had begun to peel and both grafts were adherent. At the following dressing the epidermis on the other graft had peeled off and the whole seemed to be doing well.

At my last visit to the patient on February 20, three weeks after the second operation, the healing process had progressed uninterruptedly, with the exception of the apex of one graft, upon which there appeared a granulating surface not exceeding a quarter of an inch in diameter.

As those granulations and the surrounding tissues are healthy,

we are justified in asserting that this small area will reach the stage of epidermization without obstacle.

Perforating ulcers have been looked upon by the profession at large as almost incurable. When they are due to a progressive trophic lesion of the spinal cord, their cure is apparently beyond our reach, but when caused by a non-progressive lesion, as we have in this case, the surgeon should apply the general surgical principles which serve in the treatment of other rebellious forms of ulceration, viz.: a total and complete extirpation of the diseased area, including the osseous as well as the soft parts; this is a matter of fundamental importance; the substitution of the excised part by large cutaneous grafts involving the whole thickness of the skin, as suggested by Wolfe and amplified by Krausse, by which the denuded surface is immediately protected and the weakened part reinforced by the addition of new and vigorous material, endowed with all the attributes of living and resisting protoplasm.

These were the principles followed in this case, which, with slight modifications, are identical with the rules laid down by Krausse in his recent publication.

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MALARIA—ITS PROPAGATION AND TRANSMISSION.

By W. R. BROOKSHER, M. D., FORT SMITH, ARK.

I was very favorably impressed with the article on this question by Dr. H. J. Dupuy, in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* for September, inasmuch as it very clearly sets forth the ideas I have held for some years.

My attention was called to this question soon after I began the practice of medicine, in the latter "eighties," while located on the Upper White River, Arkansas, where malaria is quite a frequent visitor and through the summer and fall months furnishes the doctor with most of his patients.

My attention was drawn to the transmission of the specific germ of malaria through the water by observing four or five families living in separate houses on the same farm. The extremes of these houses, situated on the river, were sometimes not exceeding a half-mile apart. The surroundings of these dwellings were alike; also the occupations and habits of the inhabitants, all being subjected to the same influences, with the exception of their water supply, which was separate for each dwelling. I noticed that the inmates of one house would have malarial fever pretty severely, while their neighbors, perhaps not more than a quarter of a mile away, would remain well or have it in a very mild form.

At first I was inclined to regard it a mere accident; that perhaps next season the house that had this year escaped would have its inmates attacked; but next season the same families, or those dwelling in the same house, would get down with the fever, while those in the house which had escaped the year previous would escape again. I observed this course as long as I stayed there, with the same result. It could not have been that the families in some houses took better care of themselves, for the people living in the houses were tenants, and changed from year to year, while change of inhabitants produced no appreciable result.

As stated above, the only appreciable difference in the living of these people was in the source of their water, yet there was such a difference in the healthfulness of different houses that even among the laity certain places came to be known as sickly and hence undesirable, while another house whose external appearances were pretty much the same would be known as a healthy place and a desirable home. This of course puzzled me more or less until, finding the water supply for the sickly and healthy homes invariably separate, I came to the conclusion that this was the cause of the trouble. This was my experience with not only one but a number of farms. I now recall two special instances. On one farm were two dwellings, both in the river

bottom, in the open field, and supplied by well water. The well of one was seventy-five or eighty feet deep. In this home, during the five years I lived in the neighborhood, there was not one case of malarial fever of any kind. The well of the other house was about twenty-five feet deep and at this place there was not a season during the five in which there were not some severe cases of malarial fever; some seasons the whole family would have it. It so happened that during the five years a number of different families lived in each house, so it could not be explained by extra care on the part of some of them. Watching these different houses with their migratory inhabitants for five seasons with practically the same result each season convinced me that the propagation and spread of malaria depended a great deal more upon the water we drink than the air we breathe.

I think the same factor will, in a measure, explain the relative immunity from malarial troubles enjoyed by the residents of the cities and larger towns of our Southern States as compared with those living in the surrounding country. The former often receive their water through a water supply company, which usually obtains the water from some mountain stream, while the latter get theirs from springs and surface water wells of the immediate locality. Of course, the difference in customs, habits and occupation in the two cases are not to be lost sight of in arriving at a conclusion. I am sure little, if any, difference can result from the air the two classes breathe. As a further proof of at least a part of the trouble coming from the water supply, I have in mind a town where a very marked reduction of cases of malarial fever each year followed immediately upon the city's putting in waterworks and substituting the water from a small mountain stream for that formerly obtained from the local wells. But I must refrain from going into details. Meantime, I am sure Dr. Dupuy's conclusions will correspond with the experience of many of the doctors of our Sunny Southland.

PHYSICIANS in Moscow are paid from three to five roubles for ordinary visits; that is equivalent to \$1.55 to \$2.60. All visiting as well as resident surgeons and physicians to hospitals are paid moderate salaries.

Clinical Reports.

SICK EIGHTEEN YEARS.

BY DR. W. M. GUICE, WINNSBORO, LA.

It is fully eighteen years ago that I was first called to Mrs. H., who was taken sick after having washed and scoured her house. She was a frail woman, about thirty years old. She had had a chill, suffered from pain in her right side, and all symptoms of pneumonia were found.

The usual medicines were prescribed and a huge blister was applied. After fifteen days of hard fight she commenced to eat a little; from the use of tonics and with good nursing, she was able to be up and about the house five weeks after the attack. She was left with a constant cough and a cavity in the right lung large enough to hold about two ounces.

Every morning during eighteen years she was compelled to get up at 4 o'clock in order to cough up and discharge the pus and blood that had accumulated in that cavity during the previous twenty-four hours. During that period, she would have fevers at times and nearly every year she would get so low that she was given up to die, yet she would always rally and get back to her usual standard of health—well enough to be up and about.

Recently, three bone felons developed on her left hand, one each on the thumb, middle finger and little finger. As soon as they were opened and began to discharge pus, her lungs improved, the cough was slight and the 4 o'clock expectoration ceased. She had fever for about twenty days and finally died, like a Christian, her mind still bright.

The remarkable fact of the case was the tenacity of life. All the physicians who ever examined her lungs wondered how she could live at all. Her habits were as industrious as her sickly condition could allow.

AN ATYPICAL CASE OF YELLOW FEVER WITH SECONDARY INFECTION.

BY JOSIAH I. HUNTER, M. D., M. PH., Visiting Physician, Outdoor Clinic for Children, Touro Infirmary, New Orleans, La.

Helen S., a white female, aged 16 years and 8 months, single, of previous good health, never having had malaria, was first seen September 16, 1897, at 3 P. M. She had the night before

gone to bed feeling well. Before morning she awoke and complained that her limbs were cold; later of pain in the back, forehead, back of the neck and legs. Her temperature was 103 deg.; eyes slightly congested; gums congested; tongue yellowish-white in the centre, edges and tips red, with swollen papillæ; lungs and heart normal; urine free from albumin and casts; stomach uneasy, but not tender; slight nausea; abdomen relaxed and not painful; bowels had moved; menstruation, which had commenced, was scanty, dark and clotted.

The diagnosis was reserved and patient placed on a liquid and limited diet. Ordered absolute rest in bed and calomel to be given in divided doses until the bowels moved.

September 18—Calomel acted; temperature, 102; pulse, 102; urine free of albumin; patient free of pain. That evening she got up, ate a peach and a pear; menstruation over.

September 19—Temperature, 103½; pulse, 105; recurrence of pain; no nausea; no congestion of eyes, and no jaundice. Again insisted upon a strictly liquid diet, and suggested to the mother the probability of yellow fever.

September 20—The patient ate some lettuce salad. Temperature, 102½; pulse, 108; urine rather scanty, Sp. Gr. 1038, a trace of albumin. Diagnosis: yellow fever.

September 21—The expert from Board of Health, Dr. T. S. Kennedy, confirmed diagnosis. The patient persistent in refusing the use of the bedpan, although bowels moved four times.

September 25, 9. A. M.—Temperature, 101½ deg.; pulse, 96; urine, abundant; Sp. Gr. 1016; albumin, barely perceptible. Patient weak but comfortable; no jaundice; no pain over abdomen even on firm pressure; headache and backache gone. Through the day she took some broth with rice. At evening visit she was extremely nervous. Temperature, 104 deg.; respiration, hurried and irregular; pulse, 104, and irregular. She coughed when she moved or took a deep breath. Examined lungs, found nothing abnormal. Phenacetin was given, and also on the 26th and 27th, but had to be discontinued because of prostration it produced. Gave Panopetone, whiskey and seltzer. Bowels are moving freely, patient now consenting to use bedpan.

September 29—Temperature, 105½ deg.; pulse, 120, weak, irregular and dicrotic; urine moderately abundant, Sp. Gr. 1018,

albumin 2 per cent; involuntary stools, dark and offensive; extremities cold; abdomen distended so as to embarrass respiration, but not painful on pressure. Patient perfectly sensible. Applied heat to extremities and iced towels to head and abdomen. Met Dr. John Callan in consultation. About midnight, pulse barely perceptible, patient cyanosed. Gave ammonia, digitalis, strychnin and nitro-glycerin every four hours; also gave whiskey every two hours. Distention of abdomen relieved by the passage of gas. Next night patient vomited a lot of greenish yellow material; no nausea or retching; expression anxious.

October 1—Met Dr. R. Matas in consultation. Diagnosis of yellow fever confirmed. Present condition due to secondary infection. Cardiac stimulants continued; urine abundant.

October 2—Delirious all night; slept fairly well toward morning; passed a great deal of foul gas; respiration 40; breathing exaggerated in both lungs and a few sibilant rales on right side. Mustard to right lung. Tongue clearing; no sordes; hands and feet cold; bowels moved involuntarily; stools large, dark, thin and offensive; pulse rapid, changeable and dicrotic; respiration too irregular to count; slight dyspnea.

October 3—Several involuntary movements of the bowels; stool black and about the consistency of tar; urine voided involuntarily, but abundant; Sp. Gr. 1016; albumin 12 per cent. Delirious all night, but when spoken to would answer intelligently. Breathing over both lungs greatly exaggerated; percussion note hyperresonant; no rales; respiration mostly thoracic and not labored.

October 4—Slightly nauseated; vomited toddy; pulse imperceptible; no urine for twelve hours. Patient refuses to take anything. Applied mustard over kidneys and gave nutrient enemas.

October 5—Report from the pathologist says the blood does not show the typhoid reaction. Patient vomited some green-looking fluid, having a peculiar sweet odor. Respiration 54. Met Dr. Brewer in consultation. Gave a high enema, which acted at 12:45, patient dying during its action.

The body after death was in no way jaundiced. The peculiar character of the case is in its giving the impression of two separate and distinct diseases. Patient died from heart failure.

Biographical Sketch.

DR. JOHN HARRISON BEMISS.

BY F. W. PARHAM, M. D.

“Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell,
When I embark.”

Such was the little verse our friend was so often for a few weeks preceding his death repeating over and over again. Almost prophetic seem the words “May there be no sadness of farewell,” for as events proved he was to die away from home, with not one of those he loved so well near him to soften the pangs of the dying hour. He had, after months of severe illness, when feeling somewhat stronger, gone over to Ocean Springs to recuperate, in the hope that he might be sufficiently restored to resume in the coming winter the duties of his profession, so long laid by. This was about two weeks before his death. The writer of these lines had the good fortune to be in the same train and had the pleasure of a long and confidential talk with Dr. Bemiss. He was unusually cheerful and hopeful, and spoke with much more than his accustomed animation of the past and of his future. He had many misgivings, but seemed to be determined to make the effort to take his place once more in the ranks of the profession, which he loved so much. But it was not to be.

The writer soon got off at his station, and the train sped on, bearing away with it as noble and gentle a spirit as one can wish to know. He never returned.

The unselfishness and modesty of his nature were recognized by all who knew him well. Whatever of harshness or jar may have been at times apparent was the result of his wretched health, which made him more sensitive than he would otherwise have been, but this was only like a thin veneer, easily penetrated by his friends, who saw beneath it the genuine nature, as honest as the noonday sun.

With the death of our friend, there has for the first time in a hundred years ceased to be a “Dr. Bemiss.”

Welsh ancestors of the Bemiss family settled at Worthington,



JOHN HARRISON BEMISS, M. D.

Mass., in the 18th century. The great-grandfather of the subject of the present sketch was James Bemiss, one of the early volunteers of the Revolutionary War. Severely wounded at the battle of Bennington, he returned home broken in fortune and health. John, his third son, was therefore compelled early to look out for himself, and right manfully did he do it. After many vicissitudes he graduated in medicine in 1801, and began practice at Bloomfield, Kentucky, then called Middleburg. He had married in 1796 Miss Elizabeth Bloomer, of New York. Dr. Samuel Merrifield Bemiss was the seventh son of this marriage, and the father of John Harrison Bemiss. Dr. John Bemiss, the grandfather, practised medicine up to the age of 44, when he withdrew from the profession, studied theology, and about 1830 was ordained a Presbyterian minister, which position he held until his death, of apoplexy, in 1851. Samuel M. Bemiss was born in 1821. After his preliminary education, he began to study medicine in the office of his brother-in-law, Samuel Merrifield, of Bloomfield. He thus continued until 1841, when, at the age of 20, he went to New York and became the first matriculate of the University of New York. He then returned home, where he remained until 1844, when he again went to New York, where he graduated in 1845. He then settled in Kentucky, where he did a large and lucrative practice until the breaking out of the civil war. He married Miss Fannie Lockert. Five children were the issue of this marriage. John Harrison was born in 1856, in Louisville, Kentucky. Dr. S. M. Bemiss being called to the chair of Practice of Medicine and Clinical Medicine in the Medical Department of the University of Louisiana, came here in 1866, and after an extended trip to Europe during that summer, began his course of lectures in the fall of that year. In 1867 the family remained here during the epidemic of yellow fever, and nearly every one had it, including the subject of this sketch.

Right worthily did John Harrison Bemiss bear the name, and did much to reflect credit upon it, until a few years ago he was stricken down by the slow wearing disease that sapped his energy and made him gloomy and despondent.

One of the earliest family recollections of Harry is that of a little, suffering, delicate child, with scarce life enough or will enough to maintain independent existence. At three weeks of age he was

taken very ill with an affection of the stomach, which baffled medical skill. Up to the age of five years he had scarcely lived a painless day, and this frail body he carried with him to his death, which was brought about by some trouble of the stomach.

His first school was that of Mr. Lusher, where he won the love of his playmates and the consideration of every one of his instructors. During the first school days a prize was offered for the best composition to be written entirely unaided by any New Orleans school boy of twelve years of age or under. There were many contestants, and he received honorable mention. Only a few weeks before his death, when talking with his family of the past, he remarked that when he heard his name read from the platform before a sea of heads and entirely unwarned, he was more dreadfully *shocked* than ever afterward in his life. Here is a copy of Professor Dimitry's judgment of this his first essay :

“The age of the competitor and the subject of his composition both startled me as I read. Still more startled was I when, at the head of that composition, I found three propositions, one by one carefully examined by the youthful competitor—a series of generalities, here and there, well illustrated by examples. The competitor, with fair writing abilities for one so young, developed his ideas in a pleasing way. The penmanship promises a bold, muscular handwriting. The punctuation is uneven, alternating between the accurate and inaccurate. The orthography is laudably correct; the grammar, with two or three exceptions, nearly so. The lad has evidently an analytical mind. There is promise in the future for him.”

Shortly after this he made his first trip alone into the world. His father, Dr. Samuel M. Bemiss, wanted his son to know his own much honored preceptor, the distinguished Dr. Draper, of New York. So Harry went on a pilgrimage. This was filled with many experiences, which his family often heard him tell. He remembered with much pleasure the one bright hour he spent with the aged great man, who gave him a very warm reception.

In the course of time he went to the University of Virginia, where he was said to be the youngest boy that up to that time had ever entered the institution, being just fifteen. Here he prosecuted his studies with earnestness and with much success

for several years, graduating in 1876. He then returned to New Orleans, where he matriculated in the Medical Department of the University of Louisiana, now Tulane. It was during his studentship here that we first made his acquaintance, which rapidly ripened into an intimate friendship, ending only with Dr. Bemiss' death. During these days he was closely associated with his father, Professor Bemiss, assisting him greatly in the preparation of his lecture notes. For a short time preceding his graduation he was a resident student in the Charity Hospital, but did not remain long, owing to an opportunity which presented itself through the kindness of Prof. T. G. Richardson. This was the offer of a medical position under the Hawaiian Government. Professor Bemiss, believing the change of climate would materially benefit his health, advised him to stand a premature examination and accept it. This he did, and having received his diploma, he went in the spring of 1878 to the Sandwich Islands, where he remained about five years. He was government physician in the Wailuckee and Lahaina districts, his residence and office being in the town of Wailuckee on the Island of Maui. He published after his return an interesting illustrated article on Hawaii.

He had much of interest to relate of his life out there, and told his experiences in a peculiarly delightful style. He had learned the Hawaiian language and was fond of calling attention to the musical character of its many beautiful vowel combinations. While in the islands he carried on a practical study of leprosy and made some valuable contributions to its literature. When he returned to New Orleans, about 1882, he entered into partnership with his father, Dr. S. M. Bemiss, who still occupied the chair of the Theory and Practice of Medicine in the University. He continued with his father until the sudden death from apoplexy of Professor Bemiss in 1885, just at the beginning of the course of lectures.

During this partnership with his father, which lasted until the death of the latter, Dr. Bemiss very materially assisted in the hospital work of the professor. He served as a chief of clinic and rendered much efficient service, taking numerous case notes and carefully following the admirable course of instructions in physical diagnosis, carried on by Prof. Bemiss. All students who were fortunate to be students at this time remem-

ber the remarkable diagnostic ability of Prof. Bemiss and the very entertaining way in which he imparted his teaching. To this association with his father may be largely attributed that unusual ability of the younger Bemiss as a physical diagnostician. Had his health permitted he would undoubtedly have remained the peer of any man in the Southern profession. He was so earnest and painstaking in his instruction of students that all his pupils in the classes of Tulane and afterward in the New Orleans Polyclinic remember him with the liveliest gratitude. Soon after his return from the Sandwich Islands Dr. Bemiss, Dr. G. B. Underhill, just then returned from Germany, and the writer organized, we believe, the first Quiz class in the Medical Department. Dr. Bemiss took the first year the subject of Practice of Medicine and Materia Medica, Dr. Underhill Surgery and Anatomy and the writer Physiology and Obstetrics. The following year others were associated with us, giving one branch to each one. Dr. Bemiss retained the Practice of Medicine. Thus was established, with the approval of the professors, the Quiz classes, which, modeled after the original one of Prof. Chaillé, have in various hands continued up to the present day, making now, we believe, a feature much sought after by students. He carried on this Quiz with as much zeal and earnestness as he afterward did his teaching in the New Orleans Polyclinic, which was organized in 1887 on an entirely clinical basis. He was its first president and so continued until failing health forced him to relinquish his interest in its work. But while his strength permitted, both as president and as professor of Physical Diagnosis, he threw his whole soul into his work and both students and professors cordially testified to his unflagging zeal as its executive officer and to his remarkable success as a teacher. Indeed, it was no secret among the students that the chair of Physical Diagnosis was the most ably filled and the most sought after in the Polyclinic. He had prepared a scheme of physical signs which was simple, but thorough, and much facilitated his instruction, which was almost entirely clinical. He had a happy knack with students, encouraging them on from one step to another, guiding them, making them fully appreciate each explanation so thoroughly that it was a pleasure to go on. Here was displayed conspicuously a trait recognized by his family from his early boyhood—that of exactness. His attention to

detail, in his teaching at least, was unusual, and to this his success as a teacher is largely due. This was the underlying factor in his professional career.

In his private practice he was equally conscientious, to the poor and the rich alike. We feel almost tempted to say that he was too charitably disposed, seemingly preferring to devote himself to the poor. Of this we are sure, that he gave his colored porter just as close and careful attention as he did the wealthiest of his patients on St. Charles avenue. And they all loved and honored him, rich and poor alike. He really loved the poor. Money was a secondary consideration with him. He frequently forgot to send bills, and his accounts were so carelessly kept that many who would willingly have paid him well for his services, did not know what they owed him, and a practice which should have made him independent, left him scarcely anything for his long period of enforced idleness.

He wrote many valuable articles for the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* and other journals. Some of these are: "A Few Cases of Leprosy," "Hysteria in Children Due to Malaria," "Thoracic Aneurism with Spontaneous Recovery," "Abscess of the Liver," "Hydronaphthol in Cystitis," "Hemophilia" and many shorter contributions. He was for many years a regular correspondent here of the *Medical News* and was for some years on the editorial staff of this journal. He wrote well and carefully and had his health been vigorous he would have enriched our clinical medical literature.

Dr. Bemiss was fond of music, of poetry and of children, passionately of all three. If the children were of his blood, they could not have been better loved had they been his own.

If he had always been the object of solicitude on the part of his family from his babyhood until his death, so he fully repaid them by an all-absorbing love for them. His tenderness, his watchfulness, his active sympathy were such as rarely mother, sisters or brothers ever knew before. And with all this, to die away from home! Ah, fate is hard, but it is some consolation to feel that he might have preferred this end to the pangs of saying farewell to those he so fondly loved.

And now our friend is gone. His friends will miss him sorely, and particularly those with whom he was most intimately associated, the members of the New Orleans Polyclinic, who prized

him as a friend and its most valuable co-worker. His place will be hard to fill and it will be many a day before we shall forget the usefulness he wrought in our midst.

His unselfishness is well illustrated by his efforts to alleviate distress in Ocean Springs, where he had gone, not to treat the sick, but to obtain that rest which he so much needed to prolong his life of usefulness. He arrived there at the time when the prevailing fever was at its worst. The doctors were some of them stricken down and the rest were overworked. At once, regardless of his health and unmindful of his weakness, he threw himself into the breach and did all his strength allowed. He sacrificed himself and we believe absolutely without recompense. His labors were too much for him and he died, a victim of his imprudence, it is true, but nevertheless heroically, because he did what he conceived to be his duty and this same word duty was the watchword of his life; he never was found skulking when humanity's work was to be done. Mindful of his great services as a president and teacher in the polyclinic, and mourning their loss of a friend, the members of the New Orleans Polyclinic, in special meeting assembled on the day of his funeral, ordered the following resolutions:

“WHEREAS, Death in its ceaseless course has called away from his task in life John Harrison Bemiss at a time when his services to mankind had endeared him to all who knew him, whose personality impressed all who came near him, whose ability and gentleness as a physician, whose graciousness as a friend none excelled, and whose devotion as a son and a brother was as great as rare;

“*Be it resolved*, That the members of the faculty of the New Orleans Polyclinic express their sincere sympathy with the bereaved relatives and friends of the deceased in uttering their highest sense of appreciation of his qualities as friend, physician and teacher, which we year by year have seen displayed; and further

“*Be it resolved*, That a portrait of the deceased shall be hung upon the walls of the Polyclinic, as a fitting memorial of the earnest work of one of its founders and its first president in carrying it from a precarious beginning to a pronounced success; and

“*Be it resolved*, That a copy of these resolutions be spread upon

the minutes of the Polyclinic, a copy be sent to the family of the deceased, and that copies be published in the *Daily Picayune*, *Times-Democrat*, *Daily States* and *Daily Item*, appearing Sunday, September 5, 1897.

“By order of the New Orleans Polyclinic.

“F. W. PARHAM, M. D.,

“ISADORE DYER, M. D.,

“September 4, 1897.

“Committee.”

Correspondence.

CLINTON, La., October 11, 1897.

Editors New Orleans Medical and Surgical Journal:

DEAR SIRS—We in the country have had an object lesson on yellow fever outbreaks and quarantines that has pointed strongly to the urgent need of some change in the laws establishing Boards of Health, both for the State, for parishes and for corporations.

The present outbreak of yellow fever in New Orleans and on the gulf coast has brought consternation to the people, and as is usual with extreme fright, almost entire absence of common sense in the exercise of powers conferred by law. Every neighborhood is suspicious of all other places; each municipality has enacted laws to protect itself without due regard to the rights of others, and in most instances very much more stringent than the situation demands. I suppose there are to-day, in the State of Louisiana alone, over five hundred local boards of health, each a law unto itself, and without the least attempt at uniformity or co-operation for securing protection against the yellow fever. It seems to me that all this is wrong and ought to be remedied as soon as possible.

The State Board of Health, as at present created, serves an excellent purpose as far as the city of New Orleans is concerned, but in an emergency of this kind is of but little benefit to the State at large. I believe if a general law were passed, excessive

and unwise quarantines, such as New Orleans and the entire State are suffering from now, would be impossible in the future.

My suggestion is that the State Board of Health be composed, as at present, with same number of members from the city of New Orleans, and also have a number from each parish in the State and one from each town of certain population. This board should have its domicile at the State Capital, and should hold annual meetings for discussing of such questions as might come up of interest to the public health; in fact, this board should take charge of the public health of the State in its broadest sense.

Each member from a parish or town ought to be the regularly appointed health officer for that parish or town and, acting under rules adopted by the State board, should take charge of all quarantines during an outbreak of any epidemic, or infectious disease. He should at all times look after the health of his parish or town, register births, deaths, etc.

If some law of this kind could be passed and all laws repealed giving police juries and corporations power to form themselves into boards of health, I believe the end of shotgun quarantine would be at hand, while the public health would be more thoroughly protected than it is now; the embargo on freight, as far as this State is concerned, would not be necessary. Confidence among the people in a board of health of this kind, I believe, would soon be acquired, and no one would wish to go back to the primitive methods of complete isolation to prevent the spread of disease.

Respectfully yours,

JAMES KILBOURNE, M. D.

A GOOD THING for the physician to have constantly on hand in his office is peroxide of hydrogen or hydrozone. Its properties as a powerful antiseptic are well known. A new suggestion as to its use is for the keeping clean and ready of glassware, such as irrigators, test tubes, measures, etc., while not in use; one part to four or five of clean water is sufficient; some is left in the vessel until the latter is needed, when it is to be shaken, the solution thrown out, the container rinsed with clear water, giving assurance of its thorough cleanliness.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

THE MOSCOW MEDICAL CONGRESS.

Moscow—what numerous expectations and agreeable anticipations the name used to evoke! What unique scenes and pleasurable realizations it now recalls!

It had been our intention to publish, in our last number, a lengthy account of the Russian city and of the congress. The yellow fever had by that time overshadowed everything and, as our readers will remember, a consideration of its various phases swelled the October number to unusual proportions. It now seems rather late to take up the story, but we hope a resumé of our impressions will not be uninteresting.



The accompanying cut is a correct reproduction of the silver emblem worn by Congressists. That it became familiar to the people of Moscow is not surprising, for there must have been fully seven and a half thousand worn on its streets. On the first day of the congress, already 7300 delegates and members had been registered, and they continued arriving for two or three days after. About half of the number were Russians;

two neighboring countries, Austria and Germany, sent the largest number of visitors, about 800 each; France was represented by over 400; and there were 125 of us from the United States. Every civilized country had its delegates. This brought up recollections of the tower of Babel, and it was an amusing study to try and diagnose a given individual's nationality before hearing him speak—some of them you were not sure of even after they spoke.

Many had predicted that on account of the remoteness of Moscow, the congress would be a failure, at least from the

standpoint of attendance. Evidently the charm of the unknown counterbalanced the objection as to distance and those who made the trip were amply repaid. It was worth a long journey to get even the first glimpse of the "Heart" of holy Russia. As the train reaches the edge of an elevation, one suddenly sees the city in the distance, pretty much as Napoleon must have first perceived it. The highest steeples and towers of the Kremlin can be made out and, particularly dazzling, the gold-covered domes of the new cathedral are seen glittering and glistening in the sun. The multi-colored domes and towers of numerous other churches—it possesses 450—add picturesqueness to the entrancing scene.

By the time the eye has been well feasted the heart is made glad, for as soon as the train has puffed into the station one is made aware of the great hospitality of the Russians—a hospitality that is sincere and deep and lasting. You are taken charge of and in a few moments, notwithstanding the enormous crowd, you are in a *droschky*, the coachman has been told your destination and you how much to pay him,* and you are on the road to your temporary home—and home they try to make it for you; usually they succeed. Of course, those who had not taken the trouble to write in advance to secure lodgings may have fared less well, and there was some grumbling concerning accommodations. This difficulty, however, as well as perhaps the only other ground for complaint, the lack to the end of a complete and systematic directory of the members of the congress, was due to the fact that the attendance was more numerous than the organizers had anticipated, and they were taken by surprise.

They certainly had spared no pains to prepare for their guests. The officers were not content to give orders, but saw them carried out. A happy idea had been to utilize the students to form the various information bureaus and general utility committees. Well did they acquit themselves; ever polite and obliging, polyglots with that, how welcome their semi-military gray uniform when one was in a quandary; they seemed to consider it a favor to be allowed to impart some useful information.

The congress was under the protection of the czar himself and under the patronage of the Grand Duke Serge Alexandrowitch, his imperial majesty's uncle, the governor general of Moscow.

* A not unnecessary precaution, for coachmen are the same the world over.

The latter, who opened the congress with a short address, gave the use of the Manège for the offices and general *rendez-vous* of the congress. This building, situated at the foot of the Kremlin, is used for reviewing troops when the czar is in Moscow; it is one of the most vast in existence, being over 600 feet long, 175 wide and 45 in height; it has only one story; the immense roof is ingeniously supported without the aid of columns. The various sections, fifteen in number, were assigned different apartments in the university buildings. The general sessions took place at the opera house, probably the largest in the world, seating 4000 persons and having five tiers of boxes above the orchestra and orchestra circle; the decorations in crimson and gold are very rich.

The general sessions were three in number; the first on Thursday, the opening day; the second on the following Sunday; the third on the closing day. At these, the business of the congress was transacted and important addresses were read by men of international reputation such as Virchow, Lannelongue, Lombroso, Kraft-Ebbing, Metschnikoff, Lauder Brunton, and Senn.

We shall publish, from time to time, abstracts of these addresses and of the most important communications presented at the sections, having made special arrangements to secure them for our readers.

While it may be claimed that nothing startling was accomplished at the congress, there were many papers of great merit, and there was not a section attendance at which was not repaid; the rubbing up against some of the world's medical celebrities was of itself a great advantage.

A full opportunity was given to visit the medical institutions of Moscow. Besides the University with its laboratories and the hospitals, that city possesses some rather unique institutions called clinics. These are not for outdoor patients only, but are in reality good-sized special hospitals; each branch is separate and distinct, but they are within a short distance of each other. They have been endowed by various philanthropic citizens for the good of the poor but as well for the purpose of medical education; students are not admitted to the hospitals for training, so that the professors utilize the clinics for that purpose. The buildings are modern, substantial and well equipped; the

profession of Moscow is proud of them and with reason. The hospitals are not new but have been modernized as well as possible, and possess up-to-date laboratories. The military hospital can accommodate 1500 patients, and among the more important of the others may be mentioned the ancient St. Catherine, having 800 beds. The latter, though quite old, is built on the pavilion plan; it is intended chiefly for the working people. Through the courtesy of its medical director, Dr. Schnaubert, we were enabled to see cases of two diseases we had never seen before, true typhus and relapsing fever. By the way, whenever one visited a medical institution, lunch and refreshments were invariably on hand and *ad libitum*, only another evidence of the thoughtfulness of our hosts; even a visit to the slaughter-house, where examinations for trichina were witnessed, wound up with a banquet.

Entertainments were not lacking. Concerts, in halls and in parks; receptions; rides; a garden party tendered by the Grand Duke; something occupied each evening and night after the serious work was done for the day. And everywhere and always the same cordial hospitality. The good things were not offered, but you were begged as a particular favor to partake of them.

It is known that the Russian government gave free transportation to the congressists from the frontier to Moscow and back. Besides this, every annoyance was avoided the guests of the nation: baggage was not inspected at the custom house; passports were scarcely looked at; and the badge of the congress, especially if accompanied by the scarlet bow of the delegate, was an open sesame to the museums at unusual hours, to the famous treasures in the Kremlin, and even to the palace of the czar; "congress" (accent on the last syllable) was the pass word which let one in and out of the lines.

A passing mention of the Russian horses may be allowed. All fine carriage horses and most of the draught horses are stallions; perhaps as a consequence, mares are rarely seen. The majority of the stock is jet black, well cared for, and of magnificent appearance as well as speedy. The coachmen are enveloped in wide padded robes, the higher the class the more voluminous the robe; they wear fancy colored sashes, and black hats of the shape of a beaver that has been repeatedly sat upon. The ordinary ones are not neat, so that it seems as if the hack

driver becomes more dilapidated as you go east in Europe; in London he is quite respectable, less natty in Paris, a good deal worse in Berlin, becoming disreputable looking in Moscow.

The next congress will take place in Paris during the Exposition in 1900. Professor Lannelongue was elected president and Professor Chauffard, secretary general. A serious competitor was Madrid, as Spain has not yet had the honor while Paris has already had the congress. Japan wanted it for Tokio, but was not considered a weighty candidate, and she was content to be considered as having put in the first claim for 1903, although Chicago is thought to have aspirations for that year. The election was made by the national committees. This leads to the comment that ours was one of the few committees without organization. It was humiliating to the Americans to find that their official representatives did not represent them. Even when it came to the question of a banquet and reunion of the different nationalities there was a void; at the last moment a little notice went up calling for the inscription of members from "the English-speaking countries." When we saw the list it bore the names of half a dozen English and Scotch doctors. Individually the Americans were recipients of cordial attention and were popular with their hosts. If they obtained less consideration officially it was because their official representatives were missing.

All in all, the congress was a success and the Russians made a splendid impression upon their visitors.

DENGUE OR YELLOW FEVER?

It seems natural to associate these diseases just now. We deem it imperative that the profession, especially of the South, should study them together, particularly from the standpoint of differential diagnosis. If the profession of many parts of Alabama, Mississippi and Texas have been sincere, there is a wonderful relationship between the two diseases or there is something wrong in the general acquaintance with dengue, or yellow fever, or the two when contrasted one with the other.

We have not the space, nor do we consider the time opportune, to go into a systematic discussion of the subject. We wish merely to call attention to it, state a few facts, expecting to return to the topic on some future occasion.

Outside of New Orleans, wherever yellow fever has prevailed this season, dengue (so-called) was said to be prevalent for some time before yellow fever was declared.

As long as the mortality was very slight, it was dengue; when the death rate became considerable, it was yellow fever.

In some places, no matter what symptoms occurred, it was always dengue. We recently saw a message, wired from a Texas town to a colleague in this city by his brother, detailing the symptoms of a member of the family, said to be suffering from dengue; *highly albuminous urine, delirium, black vomit*, were specifically mentioned. Comment is unnecessary.

The following candid and, no doubt, correct statement appears in the editorial department of the October *Southwestern Medical Record*, published at Houston, Tex.:

“From September 1 to September 25 we have seen and treated forty-seven cases of what we believe to be dengue fever. More than two-thirds of these cases were attacked suddenly and in the night; in only one case did we get a history of a well-marked severe paroxysm. All commenced with an aching of the bones, severe pain in the cervical and dorsal regions of the spinal column; the bone-hurting period as described by the patient lasts from twelve to forty-eight hours, and temperature ranges during this stage from 101 deg to 103 deg. After the bone aching ceases the temperature rises, and in twenty-two of the forty-seven cases it reached 105 deg. at 4 or 5 o'clock P. M. on fourth or fifth day. Our patients have complained of soreness but not of stiffness of the joints, nor have we noticed in a single instance that peculiar attitude of gait caused by stiffness and said to have given this disease the name of ‘dengue’ or ‘dandy’ fever. * * * No delirium, but restless nights with little sleep. More or less nausea in all cases, with vomiting in fourteen cases; in one case the vomiting was very severe, and lasted for three days.

“The pulse does not rise with the temperature, but in most cases remains below normal. In five cases with a temperature of 105 deg. the pulse was from 40 to 45. In all except three cases the pulse was in frequency below normal after the second day. In all cases where the pulse was greatly below normal, there was swelling of the hands and feet, but no organic heart trouble was found, nor albumin detected in the urine. In no

case have we been able to discover any eruptions as mentioned by most writers. The average duration of the fever is about five days.”

The mortality, if any, is not mentioned. One of three propositions is true. Either the above cases, as described in our contemporary, were true yellow fever; or dengue is a modified yellow fever; or prevailing notions as to the differential diagnosis are fallacious, particularly as to the important point of lack of correlation between pulse and temperature, and it is impossible to differentiate between dengue and mild yellow fever.

SANITATION FOR PUBLIC CARRIERS.

In the last number of the JOURNAL we published a set of resolutions considered by the State Board of Health of Louisiana, directed at the present lack of sanitary measures in vogue on public carriers, notably steam vessels and railroad sleeping cars.

The necessity for reform in this particular is too glaringly palpable to need defence. No one who travels fails to observe the offence to health and ethics which exists on the steamship or sleeping car. The wash basin is used by the porter for his own toilet, and it is not an infrequent thing to see the cuspidores washed out at the same font.

From the standpoint of health, it is familiar to all that no provision is made for those suffering with tubercular affections, or with other ailments. We have seen the syphilitic, in acute eruptive stage, using the common drinking glass, the toilet articles, and eating from the buffet crockery.

Not long since a lamentable instance was related to us of a woman, dying of tuberculosis, on her way to New Orleans, making the car uncomfortable by her spells of coughing, and rendering the atmosphere unbearable by the emanations from the decomposing lungs. The Pullman conductor, relating the incident, deplored the fact that no provision was made for the separation of such cases.

Resolutions can only direct intelligent thought at the remedy, but persistent effort in directing attention to the necessity for some remedial measure must result in its application. State Legislatures have it in their power to compel sanitary measures

through their State Board of Health, and there is no reason why the legislative action should not go farther in compelling provision for the hospital accommodation in transit for such cases as the above.

Medical News Items.

SEVERAL YOUNG PRACTITIONERS have been stricken with the prevailing fever. Fortunately, we have no fatality to record this month. Drs. J. Barnett, M. J. Magruder, H. Olliphant, Otto Lerch, E. P. Lowe, C. J. Miller, S. G. Kreeger are among those who have been attacked, but we are happy to state that they have all made good recoveries.

DR. OLIVER T. ERNST was wedded to Miss Katie McCormick last month and has our congratulations.

DR. S. W. KELLY it is, and not J. W., as stated some time ago, whose views against making specialists in college are so sound that we quoted them. He is editor of the *Cleveland Medical Gazette*, in which his address was first published.

NOT LONG AGO we chronicled the retirement of Dr. Joseph Brasseur as editor of the *Gazette Médicale de Liège*, following upon the death of his beloved daughter. To-day we must record his own demise, which occurred at Liège, September 18, 1897.

THE MEDICAL SOCIETY of Franklin parish holds its meetings regularly every three months. The attendance is good and cases are brought to the meeting for examination, discussion and prescription gratis. The members strictly adhere to their rules for deadbeats. The parish is generally healthy.

PASSED ASSISTANT SURGEON WM. D. STRATTON died at Sabine Pass, Texas, on the 2d inst. under distressing circumstances.

In the pressing need of medical officers for active work during the prevalence of yellow fever, he, though an invalid and on

waiting orders, volunteered his services to meet the emergency and the tender was accepted. He was ordered to Sabine Pass to assume charge of service matters relating to the quarantine service at that port. On the 1st inst. he had been superintending the disinfection of a vessel and, returning to assure himself upon the work done, fell through a ventilating hole, striking his head on an iron knee, producing concussion of the brain. He remained undiscovered for several hours, remained unconscious until death occurred, eighteen hours after the accident. He was 37 years of age and a native of South Carolina.

THE OCTOBER *Louisville Medical Monthly* contains a paper entitled "Some Observations on Diagnosis and Treatment of Yellow Fever," by L. Sexton, M. D. The *American Medico-Surgical Bulletin*, of October 10, prints a letter with the same heading, signed by the same author. Neither journal gives credit to the other, although the article is the same, but the *Bulletin* seems to have the advantage, as the construction of some of the sentences in its version is better.

DR. H. R. CARTER, of the United States Marine Hospital Service, stationed here to assist the local health authorities in carrying out sanitary and preventive measures as well as to aid in establishing sensible quarantine methods, is surely one of the hardest worked men in the country. His labors have accomplished a good deal and he is highly considered by the professional and the business element both. He is as modest as ever, nevertheless, and seems to avoid rather than seek notoriety. Well liked by all those who had the pleasure of his acquaintance when he was in charge of the Marine Hospital here a few years ago, he has made many new friends.

THE ISOLATION HOSPITAL, up to October 25, has cared for 118 patients. Of this number 64 have been discharged cured; 13 have died; 41 remain under treatment. The showing is not bad, as it must be considered that many of the patients are brought there in an advanced stage of the disease, a few being actually *in extremis*. The hospital is under the management of the Charity Hospital authorities, and is visited by Drs. Bloom and Veazie, while Dr. Hamilton Jones is the resident physician in charge.

THE TOTAL NUMBER OF CASES of yellow fever reported officially in the city of New Orleans up to October 25, is 1154. The deaths have been 127; the complete recoveries, 580, and those remaining under treatment, 447. It is evident that the percentage can not be calculated before the termination of all cases.

DR. ISADORE DYER is on his way back from Berlin, where he attended the Leprosy Congress as a delegate from the city, the Polyclinic, the State Board of Health and our medical societies. He read the paper we published last month, which may be destined to revolutionize the treatment of leprosy. The congress framed its conclusions concerning the nature and propagation of the disease. We postpone further comment in order to publish a more complete account.

THE DEPARTMENT OF AGRICULTURE, by direction of Congress, is investigating the character and extent of the adulteration of foods and drugs. It is generally believed that adulteration, sophistication, imitation, and misbranding of foods, drugs, and liquors exist to a very great extent. Many of the States have enacted laws to prevent such practices, and it is very desirable to know how these laws have been enforced, and with what results. The general public is largely interested in this matter, as it affects health, morals and legitimate trade. Information on this subject may be sent direct to the Chemical Division of the Department of Agriculture.

The department simply desires a concise statement of facts, which can be fully substantiated if necessary, and not theories.

THE NECESSITY FOR THE EMPLOYMENT of physicians on ships and steamboats has been considered by the Newport, R. I., Medical Society, of which Dr. V. Mott Francis is president. It has passed resolutions urging Congress to change the laws on the subject, making suggestions in detail. The object is in line with the views expressed in our August editorial on this question.

THE AMERICAN PEDIATRIC SOCIETY is making a collective investigation of infantile scurvy as occurring in North America, and earnestly requests the co-operation of physicians, through their sending of reports of cases, whether these have already been published or not. No case will be used in such a

way as to interfere with its subsequent publication by the observer. Blanks containing questions to be filled out will be furnished on application to any one of the committee. A final printed report of the investigation will be sent to those furnishing cases. The committee consists of J. P. Crozer Griffith, M. D., chairman, 123 South Eighteenth street, Philadelphia; William D. Booker, M. D., 853 Park avenue, Baltimore; Charles G. Jennings, M. D., 457 Jefferson avenue, Detroit; Augustus Caille, M. D., 753 Madison avenue, New York; J. Lovett Morse, M. D., 337 Marlboro street, Boston.

AN EXCELLENT PORTRAIT OF VIRCHOW is inserted in the October *Clinical Review*, of Chicago.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

OPERATIVE RESULTS IN HERNIA.—Dr. Lucas Championnière, in *Bulletin de l'Académie de Médecine*, August 3, 1897, announces his results in the radical cure of hernia for the past sixteen years.

He has operated 650 cases of hernia: Inguinal, 550 (males 501, females 49); crural or femoral, 46 (males 13, females 33); umbilical, 22 (all females); epigastric, 14 (all males); eventration, 12 (males 2, females 10). Recurrence observed in 23 cases. Complete cures allowed patients to undergo severe exercises, without truss. Recurrence occurred in hernias of the large bowel, in fatty or aged subjects, in emphysematous or coughing patients.

Rapid fattening is a potent causative agent of recurrence.

Mortality, though feeble, exists in this operation.

Mr. Championnière has a series of 265 cases without death; in the balance of his statistics he has but five deaths. It is, how-

ever, true that a statistic comprising only young subjects would give only 0.20 per cent. of deaths, *i. e.*, one death for 500 operations. The essential elements of the operative method advanced by the author consist in the removal of all accessible omentum, obliterating completely the peritoneal sack, and the re-establishment of as *thick* a wall as possible.

TEMPORARY GASTROSTOMY FOR CICATRICIAL STRICTURE OF ESOPHAGUS.—Mr. Eugene Villard, in *Lyon Médical*, September 12, 1897, says: "The two typical methods of treating cicatricial esophageal stenosis consist in the usual method of dilatation and of gastrostomy when the former proves unsuccessful."

He thinks that we must not consider gastrostomy as a definitive, but simply as a temporary measure, to save time, to give rest to the esophagus, thereby suppressing the spasmodic and inflammatory condition, thus allowing to resume the momentarily suspended catheterism.

The following observation confirms these views: "A woman aged 45, had a cicatricial stricture for the past four years, due to ingestion of sulphuric acid. Regularly catheterized, this woman was fed through esophagus until June, 1897, when, from unskilful catheterization, deglutition even of liquids became impossible. This woman, after ten days of absolute diet, was in a very bad general condition, weighing only 39 kilogrammes (78 pounds). Mr. Villard then performed gastrostomy in two sittings, and for nine days the patient was fed through the stomach. Esophageal catheterization then became again possible, as well as deglutition of liquids. From this on, regular dilatation of the esophagus was performed. Two months after, an operation was done to obliterate gastric fistula: autoplasty with three planes of suture; an insignificant fistulette, persisting for some time; complete cure in November; the patient had then gained 11 kilogrammes (22 pounds). At present she is fed by the mouth regularly and catheterized from time to time, so as to maintain the caliber of the esophagus. This is not, however, a unique case. In a statistic by Mr. Lefort, comprising 16 patients, 13 recovered, with a permeable esophagus after gastrostomy; and in one case of Mr. Jabouley, of Lyons, gastrostomy performed almost *in extremis* enabled esophageal catheterization twenty days after, with a complete subsequent cure.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, New Orleans.

In the August 14 number of the *New York Medical Journal* is an interesting report of two cases of pregnancy following ventro-fixation of the uterus. The report was made by Dr. A. M. Newman. Although the uterus in each case had been fixed to the abdominal peritoneum by two permanent silk sutures both women became pregnant, were delivered at term, and had less suffering than at previous *accouchements*. One of the women had some slight threat of abortion at the third month, but after three or four days' rest in bed the uterus became tranquil. The bladder and site of sutures caused considerable annoyance during the last two months of gestation in this case.

The author informs us that in 1896, Dr. Noble, of Philadelphia, collected and reported 806 cases of *suspensio uteri* from American operators. Of this number fifty-six became pregnant. Of these forty-three were delivered at term, seven were not delivered at the time of the report and six aborted. Among these fifty-six cases there were four deaths. Of these deaths "two occurred from heart disease before term, three from septicemia produced by retained dead fetus of seven months, both of which were among Dr. Edebohl's cases; one died after Porro's operation made by Dr. Noble, where the hypertrophied anterior uterine wall interfered with pelvic delivery." Although the author mentioned only four deaths among these fifty-six cases it is apparent that there were six deaths. Whether the trouble with the figures arises from *lapsus calami* or from a printer's error remains to be shown. However, the operation could hardly be charged with the death of two of the cases.

The author believed that the sutures in ventro-fixation should either be placed from before backward through the anterior surface of the uterine horn or transversely through the anterior surface of the body near the fundus, but not including it. He believed that such an arrangement of the sutures will allow the fundus to take part in the physiological hypertrophy.

The following case was reported by Dr. H. C. Coe in *The New York Polyclinic*, for July, 1897: A female child, two weeks of age, was afflicted with a reddish tumor, apparently protruding from the vulva. This tumor was about the size of a marble, was very painful, bled freely when handled, caused straining, and was cystic in appearance. It was seen to be grasped by the vulvo-vaginal ring, had ruptured in its under side, and bloody fluid escaped from the opening.

A filiform catheter inserted into the opening of the cyst penetrated two inches.

This tumor made its appearance suddenly, small as a pea at first, and rapidly increased in size.

It was found impossible to reduce the mass by pressure, so it was excised after having ligated its base with catgut. Urine at once flowed spontaneously. "The stump was seen to protrude from a greatly distended meatus, being attached to the floor of the urethra at its lower third." The child made a perfect recovery.

Communicating with the cyst wall were portions of two ducts which suggested to the doctor the bladder ends of the ureters.

Dr. Skene, to whom Dr. Coe wrote for information, said that he had never met with a similar case in either the young or adult. Dr. Skene suggested that the "cyst may have developed either from a patent duct of Gärtner, or from the closed duct of a urethral gland."

In the July and August number of the *Revue de Gynécologie et de Chirurgie Abdominale*, of Paris—an especially fine journal from every point of view—are a number of instructive articles, from which the following extracts are made:

Dr. Fr. Neugebauer, of Warsaw, reports fifty cases of cysts of the vaginal wall. Among these fifty cases forty-eight were married women, and eighteen of them sterile. While the doctor mentioned these eighteen sterile women, he did not contend that the sterility in every case was due to the presence of the cyst, but had no doubt that cysts of sufficient size could well prevent conception. He recommended Schröder's method of resection. Nearly all of his cases were due to obliteration of Gärtner's tube.

In an article entitled "L'hystérectomie Abdominale Totale,"

etc., Dr. Paul Segond asserts that the Kelly method of performing hysterectomy is the simplest, most rational and most scientific. He prefers it to the Doyen and all other methods. He deplors the comparative ignorance, in Europe, of this wonderful method that possesses all the advantages and improvements desirable. He speaks of Dr. Howard Kelly as "*ce remarquable chirurgien.*"

Department of General Medicine.

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

CHRONIC POISONING BY BENZINE.—Dr. Santesson, of Stockholm, read a paper at Moscow on nine cases of poisoning, with four deaths, occurring in a bicycle factory, where a solution of India rubber in benzine was in constant use.

All the cases were in females. Headache, vertigo, vomiting, prostration, anemia, and, above all, hemorrhage from the skin, gums, stomach and genital organs were the signs of the poisoning. No jaundice—which excluded any suspicion of poisoning by phosphorus. The course was subacute and the disease lasted several weeks.

The factory lacked in ventilation, and in the workshop, where the employees remained very long, a strong odor of benzine pervaded the atmosphere. In one of the fatal cases the microscopical examination of the organs revealed fatty degeneration of the heart, liver, kidneys, pelvic organs and endothelium of the vessels.

Chemical analysis of the benzine in use showed it was comparatively pure, containing nothing else but benzol and its homologues, the latter in small quantity. No aniline or nitrobenzol were detected.

Dr. Santesson, to clear up the mechanism of this intoxication, has made a series of experiments on rabbits. In some he applied compresses soaked in common benzine sold in the market, in others he injected it subcutaneously. All the animals presented a lowering of temperature, trembling and progressive paralysis. At autopsy, from three to six days after the poison-

ing, small hemorrhages were found in the lungs and gastrointestinal mucous membrane. The endothelium of the vessels was not degenerated.

The subcutaneous injection of benzol, C. P., produced the same phenomena. Therefore, benzol was the toxic substance in the benzine.—*Gazette Hebdomadaire.*

MALARIAL HEMOGLOBINURIA.—In the August number of the *American Journal of the Medical Sciences* there is a remarkable abstract on this subject. Osler writes: "This careful abstract (for which we are indebted to Dr. Thayer) should prove of great value to those Southern practitioners who are interested in quinine hemoglobinuria. The condition, so far as I know, is not met with in this latitude (Baltimore, Maryland)."

The fact that malarial hemoglobinuria and quinine hemoglobinuria are met with in Louisiana (chiefly in rural districts) explains our transcribing in full the excellent abstract referred to.

Bastianelli (*Le Emoglobinuria da Malaria, Annali di Medicina, Anno ii, Fasc. XI*), has recently contributed an excellent article upon malarial hemoglobinuria, based not only upon the cases observed in Rome, but upon the careful analysis of the work of others. He asserts that it is practically proved that hemoglobinuria occurs only in infections with the æstivo-autumnal parasite. The recent observations of A. Plehn tend to show that the cases analyzed by F. Plehn, as well as his own, were instances of æstivo-autumnal infection. The manifestation is rare in Italy, commoner in Sicily and Greece, very common in the tropics. An interesting point is that hemoglobinuria following quinine is extremely rare in Italy, no case having ever been reported from the Campagna. The frequency with which these cases occur increases, just as in cases of spontaneous hemoglobinuria, as one passes south.

Hemoglobinuria due to quinine never occurs excepting in patients who are suffering or who have recently suffered from malarial fever.

Spontaneous hemoglobinuria may be at times intermittent, or, as is more common, in single paroxysms. He divides the spontaneous hemoglobinurias into three classes:

(a) In the blood there are found æstivo-autumnal parasites of the pyrogenic cycle, that is, young hyaline forms. Here the

hemoglobinuria occurs regularly in association with the segmentation of a group of parasites, that is, at the time of the ordinary paroxysm. This he terms the paroxysmal hemoglobinuria.

(b) In the blood there are found only crescentic or ovoid bodies and pigmented leucocytes, or possibly pigmented leucocytes alone. Sometimes at post mortem the blood is quite negative as regards parasites. They may also be wanting in the internal organs, but from the intravascular melanosis it may be seen that the parasites have disappeared quite recently. In this class the paroxysm of hemoglobinuria is caused by the segmentation of a group of parasites which disappear spontaneously during the attack. The changes left in the blood and internal organs, however, are so great that the paroxysm continues for hours or days after the organisms have disappeared from the blood. Bastianelli terms this form the post-paroxysmal hemoglobinuria.

(c) The blood examination is entirely negative, and the only evidence of there having been a malarial infection is the presence of an endothelial, perilobular, perivascular melanosis. The malarial process has come to an end some time previously. Here the attack of spontaneous hemoglobinuria does not depend upon the presence of parasites, but starts without apparent cause. Such paroxysms may be intermittent and repeated at short intervals, but are more commonly single, of long duration and very severe. This form is especially grave and is the "pernicious hemoglobinuria" of Marchiafava, while Bastianelli calls it the post-malarial hemoglobinuria.

In all probability the parasites which produce the febrile paroxysm play an important causative part in some cases. An anemic condition of the blood, however, seems to be indispensable for the production of the phenomenon, as hemoglobinuria does not occur with the first paroxysm, either in the initial attack or in a relapse. It is rare under any circumstances in the first attack, usually occurring with the first relapse or after repeated relapses. There is also in some cases an individual predisposition.

Hemoglobinuria does not occur in the most chronic cases of malaria, in those cases where a certain equilibrium is established between the needs of the organism and the function of the

hematopoietic organs, but in those where the organism is yet freeing itself from the residue of the infection and anemia and melanosis still exist.

Bastianelli finally takes up the hemoglobinuria due to quinine. He asserts that :

1. It occurs only in individuals in whom a malarial infection has preceded.

2. The attack is produced constantly every time that quinine is administered, whether it is given while the malarial attack is in progress (Tomaselli), or whether it be given when the malarial infection has run its course (Murri).

3. Extremely small doses are capable of bringing on an attack.

4. It has been seen in patients who have already suffered from spontaneous hemoglobinuria (Murri). It is rare, excepting in the tropics. No doubt there exist cases of hemoglobinuria due distinctly to the administration of quinine.

Bastianelli says: "The preceding malaria creates the fundamental disposition; the existing malaria the accidental disposition; the quinine the provocative agent." He divides quinine hemoglobinuria into two forms, the paroxysmal and the post-malarial.

In these varieties, through a very considerable length of time, quinine will produce a hemoglobinuria whenever administered. There are, however, instances where the hemoglobinuria due to the taking of quinine occurs only now and then during the paroxysm. These cases are rare.

Bastianelli makes practical deductions with regard to treatment, depending upon the blood examination. If hemoglobinuria occurs during a malarial paroxysm and parasites are found, quinine should always be given. If, however, no parasites are found, either as a result of previous administration of quinine or on account of the spontaneous disappearance of the organism, we may remember that the administration of quinine will have no effect upon this attack, and that for the time being another attack is not to be expected. In these cases he recommends not giving quinine, as the paroxysm may have been due to its previous administration.

If, in an attack occurring in the middle of an ordinary malarial paroxysm, there arise doubt as to its origin from quinine, it is well to abstain from its further administration, as that already

given is usually sufficient to hinder the development of new febrile paroxysms. But if, in an attack which has come on after the giving of quinine, the parasites are still found in the blood, one is justified, despite the danger, in insisting upon the specific treatment. If there be doubt as to the origin from quinine, we may be sure of what the result will be if we allow the parasites to go on developing, and it is, therefore, safer to interfere.

Department of Therapeutics.

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

HYPNOTISM IN TABES DORSALIS.—M. Em. Spalikowski presented to the Académie des Sciences a communication on the influence of hypnotic sleep on the gastralgia that accompanies tabes dorsalis. He says (*La France Médicale*): “The terrible attacks of gastralgia to which those having ataxia are liable are well known, especially in what is usually called the first period of tabes, but in the case to which I am about to refer the attacks took place in the second period.

The remedies heretofore employed have been entirely without benefit to the patient; morphin is too dangerous, especially in nervous subjects.”

The doctor, therefore, employed hypnotism, which afforded him excellent results.

The patient was a woman, 46 years of age, who had suffered from tabes dorsalis for six years. She experienced all the classic symptoms that accompany the first period, and, besides, she suffered when her monthly periods returned. They came regularly and were accompanied with violent gastric pains which lasted from five to ten minutes, and returned generally every six hours, for two or three days. She had none of the symptoms of hysteria.

The attacks were so painful in the beginning that the patient tore her clothes and everything that might be within her reach. I therefore tried to induce sleep by means of passes, and she became so sensitive to them that now it is sufficient to present

before her eyes two fingers, the index and medius of the right hand, extended and separated, to induce sleep.

This has been done for each gastric attack. The attacks have become less frequent, and now she suffers only from some light cramps, which are immediately removed by the hypnotic sleep.

The treatment has lasted three months.

It is impossible not to recognize the favorable influence of the application; the patient has improved much in her general condition, and it is suggested that a series of experiments be made to determine, if possible, the effects of hypnotism on *tabes dorsalis*.—*The Sanitarian*.

PILLS FOR CONSTIPATION IN CHILDREN.—Pruys (*Journal de Médecine de Paris*) is credited with the following:

℞	Extract of cascara sagrada.....	grains xxx
	Extract of frangula.....	grains xv
	Powdered aloes	} each
	Powdered gentian	
	Medicinal soap, q. s.	
M.	Divide into eighty pills.	

Sig. From one to four pills to be taken at bedtime.

—*New York Medical Journal*.

CORDOL.—Under this name tri-bromosalol has been placed on the market as a sedative. It is a crystalline powder of melting point 195 deg.—*The Retail Druggist*.

THE ADMINISTRATION OF CREOSOTE according to the following formula is recommended by the *Journal des Praticiens*:

℞	Creosote (beechwood) } each.....	gr. xv
	Pulverized benzoin	}
	Pulverized charcoal.....	

Triturate the creosote and the benzoin and add the charcoal by degrees. Divide into five or ten cachets, according to the dose to be given.—*The American Therapist*.

STRONTIUM ARSENITE.—Dr. Leon L. Solomon, writing in *The American Therapist*, August 15, 1897, says, in speaking of strontium arsenite, "With this more recent addition to our armamentarium, very pleasing results have been accomplished. In the doses of $\frac{1}{60}$ to $\frac{1}{10}$ grain it is a powerful tonic and alterative. It has been employed by me in malarial cachexias as a syner-

gyst to quinine, also in several cases of chorea, and on one occasion in psoriasis, each time successfully. My claims for it are: less irritation than potassium arsenite solution (Fowler's solution), while permitting of the administration of double quantity of arsenic. Compare formulæ: Sr. $(As O_2)_2$ and (K As O₂).

Book Reviews and Notices.

Eye-Strain in Health and Disease. With special reference to the amelioration or cure of chronic nervous derangements without the aid of drugs. By AMBROSE L. RANNEY, A. M., M. D. Illustrated. The F. A. Davis Company, Philadelphia and Chicago.

It is regrettable that space does not permit a lengthy review of this most interesting work. It is a book all oculists must read; all practitioners who wish to be fully informed as to the ability of refined special knowledge to come to the rescue of many otherwise hopeless cases, should read it. There can be no longer any doubt that in this work and that of Dr. Stevens on "Functional Nervous Diseases," the authors have proven the dependence of many cases of intractable headache, chorea, epilepsy, and even melancholia, upon a lack of normal power and balance among the orbital muscles, and the possibility of relief by accurate determination of anomalies and their correction by properly performed tenotomies. After making every allowance for the enthusiasm of pioneers in an absolutely fresh field, the truth of this assertion remains incontrovertible, unless one is prepared to deny the facts upon which these writers rest their conclusions. Such denial, however, is impossible.

The cases are supported by irresistible confirmatory evidence, and no one who has labored in this most difficult department but will acknowledge the enormous debt of gratitude we owe to the researches of these indefatigable experts. It must be admitted, of course, that our knowledge of the subject is as yet very incomplete, and that adequate data are yet lacking for the formulation of positive laws and rules; but no one who, by reason of his experience, is competent to judge, can doubt that such laws

and rules for the determination and correction of anomalies of the extrinsic ocular muscles will eventually be related to the exactness and completeness of those that now guide us in dealing with the errors of refraction. There can be no less doubt, however, that the subject will always remain one of complexity and difficulty, requiring not only a large amount of special and technical knowledge and large experience, but a peculiar temperament and mental endowment upon the part of the eminently successful practitioner. Indeed, only those who have had at least a *modicum* of experience can at all appreciate the exact—almost mathematically exact—nature of the results obtainable, and necessary to be obtained if we are to achieve the desired end, by the best work in correction of refractive and muscular errors; the keenness of observation that must constantly be exercised; the acuity and correctness of the reasoning to be applied, and, finally, the tactful and inexhaustible patience. This is one of the difficulties that renders slow the acceptance of such work as Dr. Ranney has done; to the non-expert the proposition “to cut a muscle” and relieve a severe functional trouble wears an air of absurdity that would completely vanish could he appreciate the enormously laborious collation of facts and the acuteness and soundness of the logical deduction upon which the diagnosis and prognosis depend. There is no diagnostic process in medicine or surgery comparable to it. The cutting of the muscle is nothing, but the knowledge necessary to a correct conclusion must be vast, the experience multitudinous, the patience infinite, the common sense and reasoning robust and sound. Further difficulties in forcing the acceptance of this new body of knowledge lie in the misapprehension of the full meaning of such a work as the one under consideration. Evidently the thesis of Dr. Ranney is not that every case of functional nervous disease is to be referred to a defective refraction and muscle balance or that many cases so caused can not be cured by correct lenses and prisms, but that there are many such cases that after careful determination and analysis can be relieved by tenotomy and by tenotomy only and alone; now, this is a book descriptive of that particular class of cases only, and it is the height of folly to dismiss it by repetition of the *banalité* that Dr. R. is crazy on the subject of curing epilepsy by muscle cutting. But we

have already overstepped the limits of our space. To those who have participated in such work, the evidences of Dr. Ranney's care and conservation are abundant. Those who would keep abreast with the advancement of medical science must inform themselves adequately upon this now rapidly developing section of medical art.

BRUNS.

True to Themselves. A Psychological Study. By ALEX. J. C. SKENE, M. D., LL. D. Published by F. Tennyson Neely, New York and London.

This work, purporting to be a psychologic study, is printed on cheap paper in a cheap edition. Dr. Skene has told a commonplace story, with a glaring lack of literary finish, introducing toward the end of the book an ordinary instance of telepathy to fulfil the promise of the title. The incident is related with less skill than a tyro could have displayed. Altogether we are forced to question if Dr. Skene has really written a book so far below his other literary efforts, devoted to a field in medicine with which he is known to be familiar.

DYER.

The American Text-Book of Operative Dentistry. In contributions by eminent American authorities. Edited by EDWARD C. KIRK, D. D. S. Lea Bros. & Co., Philadelphia and New York.

This work is all the author claims for it and is fully equal to other works upon the same subject. In fact, from a literary standpoint, it is a decided advance upon previous text-books. It is made up of contributions from fifteen men of prominence in the dental profession. In this way the author has succeeded in securing a complete and comprehensive treatise upon the subject, thereby furnishing a very valuable work, which we heartily recommend.

FRIEDRICHS.

A Text-Book of Diseases of Women. By CHAS. B. PENROSE, M. D., Ph. D. W. B. Saunders, Philadelphia. Armand Hawkins, New Orleans.

This latest work on "Diseases of Women" was written for the medical student. While some of the views and suggestions

contained therein might not meet with the approval of quite a number of so-called authorities, they are the views of Professor Penrose. Every student of gynecology must be more or less familiar with the writings of this excellent teacher, and must, from these writings, have learned to respect his opinions.

There is an individuality about the book that is charming. It presents in an easily understood form all those facts that the author's experience has permitted him to become familiar with and those theories that careful thought has led him to consider most practical and acceptable. As a rule, he has recommended but one plan of treatment for each disease. He has eliminated discussion of the anatomy and physiology of the pelvic organs. Unfortunately, he has considered it wise to indulge sparingly in pathology. We would have delighted in finding the pathology of some pelvic diseases more fully discussed.

The author appears to be an admirer of the pessary, but seems to think that there are certain cases of retroversion that do not require any treatment whatever. Of operative measures in the treatment of backward displacements he gives preference to ventro-suspension.

The subject of cervical catarrh and endometritis is treated in a simple and most practical manner. He objects to uterine packing after curettage, and his reasons appear quite sensible. But not all will agree with him that "time is wasted by the use of applications to the interior of the uterus," nor will all agree with him that curettage will accomplish as much as he thinks it will. However, these are his views.

In speaking of the curette he says that it does not completely remove all the endometrial structures, the vital ends of the utricular glands remaining. And he thinks it probable that the new lining membrane develops from these glands. He concludes by saying that "the therapeutic object of curetting for endometritis is to replace the diseased endometrium by a new membrane, which has grown under conditions of rest and asepsis."

In the treatment of tubal pregnancy—and he does not appear to believe in such a thing as ovarian pregnancy—he is radical. He says: "If the physician is so fortunate as to recognize a tubal pregnancy before primary rupture, he should without delay remove the affected tube and the contained ovum." There

is no denying that such is rapidly becoming the opinion of all who have seen that form of pregnancy.

The book is simply arranged, clearly written, well illustrated with a great many new and excellently executed cuts, and should be read by every medical student and many physicians, to whom it is strongly recommended.

MICHINARD.

A System of Medicine. By Many Writers. Edited by THOMAS C. ALBUTT, M. A., M. D. and C. Volumes I and II. The McMillan Company, New York. 1897.

This system comprises so much important material which is usually omitted in works on the practice of medicine that this alone would make it valuable. No pains have been spared in the elaboration of every subject treated. There are chapters devoted to Medical Statistics and Anthropology in its Relations to Medicine. Temperament and Heredity are fully discussed along the same plane. An excellent chapter has been contributed on the Doctrine of Fever; Inflammation is exhaustively and magnificently handled; Balneology and Hydrotherapeutics, the Medical Application of Electricity, Massage, Nursing, Diatetics, Hygiene of Youth, etc., are among the general subjects treated, all of which are found in volume I. The second volume comprises chapters on Infective Diseases and Toxicology. There is every evidence of the most careful editing and conscientious collaboration. Every article is marked with a finish rarely seen in modern text-books, particularly of recent publication. Two more volumes are announced by the publishers, and if the same standard obtains, the system must be invaluable.

DYER.

Hypnotism and Its Application to Practical Medicine. By OTTO G. WETTERSTRAND, M. D.; translated by HENRIK G. PETERSEN, M. D., with additions. G. P. Putnam's Sons, New York and London.

The translation of this work has been well done, and the subject is excellently presented. The author has selected an effective way of handling a difficult subject, by tabulating his material and by giving one or more cases as examples. Each physical condition amenable to hypnotic suggestion is separ-

ately presented with brief instances of actual cases, and the method of hypnotic suggestion employed is given. So simply is the book written that it may be readily understood by any intelligent reader. A complete bibliography is arranged at the beginning of the work, with additional references to magazine articles as foot-notes.

Dr. Petersen has added several articles on interesting topics, notably those on "Suggestive Treatment in Reform Work," "Post-Hypnotic Responsibility" and "Music, Not Sermons, in Insane Hospitals."

Altogether the work commands attention as a practical presentation of hypnotism as a therapeutic measure of definite service.

DYER.

International Clinics. Edited by JUDSON DALAND, M. D., J. M. BRUCE, M. D. and D. W. FINLAY, M. D. Vol. II, Seventh Series. J. B. Lippincott Company, Philadelphia, 1897.

This volume of the well-known quarterly contains a large number of articles covering all fields of medicine and surgery. As usual, these are for the most part written in the form of lectures or as clinical articles.

DYER.

PUBLICATIONS RECEIVED.

Diseases of Women, by J. B. Sutton, F. R. C. S. (Eng.), and A. E. Giles, M. D., F. R. C. S. (Ed.).—W. B. Saunders, Philadelphia, 1897.

Report of the American Academy of Railway Surgeons, edited by R. Harvey Reed, M. D.—American Medical Association Press, Chicago, 1897.

Transactions of the Medical Society of the State of West Virginia, 1897.

The Origin of Disease, by Arthur V. Meigs, M. D.—J. B. Lippincott Company, Philadelphia and London, 1897.

Appendicitis and Its Surgical Treatment, by Herman Mynter, M. D.—J. B. Lippincott Company, Philadelphia and London, 1897.

Principles of Medicine, by Charles S. Mack, M. D.—The W. T. Keener Company, Chicago, 1897.

Twentieth Century Practice, Vol. XI, edited by Thomas L. Stedman, M. D.—William Wood & Co., New York, 1897.

The Action of Medicines, by T. Lauder Brunton, M. D.—The Macmillan Company, New York and London, 1897.

Hygiene of Childhood and Youth, by Thomas More Madden, M. D.—Fannin & Co., Dublin, 1897.

Rheumatism and Treatment by Percusso-Punctator, by J. Brindley James, M. R. C. S.—The Rebman Publishing Company, Limited, London, 1897.

Lectures on Malarial Fevers, by William S. Thayer, M. D.—D. Appleton & Co., New York, 1897.

System of Medicine, Vol. III, edited by Thomas C. Allbut, M. D.—The Macmillan Company, New York and London, 1897.

Tuberculosis of the Genito-Urinary Organs, by N. Senn, M. D.—W. B. Saunders, Philadelphia, 1897.

Transactions of the Medical Society of the State of New York, 1897.

Notes on Pathology, by W. W. Evans, M. D.—The W. T. Keener Company, Chicago, 1897.

Essentials of Obstetrics, by Charles Jewett, M. D.—Lea Bros. & Co., New York and Philadelphia, 1897.

Sexual Disorders of the Male and Female, by Robert W. Taylor, M. D.—Lea Bros. & Co., New York and Philadelphia, 1897.

Johns Hopkins Hospital Reports, Vol. VI, 1897.

True to Themselves, by Alex. J. C. Skene, M. D.—F. T. Neely, New York and London, 1897.

REPRINTS.

The Antiseptic Treatment and the Limitation of Climatic Treatment of Pulmonary Tuberculosis, by E. Fletcher Ingalls, M. D.

The Hemiplegic State and Its Treatment, by Archibald Church, M. D.

Atrophic Rhinitis, by J. E. Rhodes, A. M., M. D.

Medical Education.—Direct Autopsy-Kirstein.—Exaggerated Arytenoid Movement, etc.—Fatal Hemorrhage from the Nose and Pharynx from Unusual Causes, by Robert Levy, M. D.

Ueber Kystoscopie und Katherismus der Ureteren, by Wm. Sutherlin, M. D.

Treatment of Chronic Suppuration of the Middle Ear, by S. S. Bishop, M. D., LL. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR SEPTEMBER, 1897.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	3	3	6
“ “ Intermittent.....			
“ “ Remittent.....	3		3
“ “ Congestive.....	2	2	4
“ “ Typho.....	1		1
“ Yellow.....	27	1	28
“ Typhoid or Enteric.....	7	3	10
“ Puerperal.....	1	1	2
Cancer.....	9	5	14
Influenza.....			
Measles.....			
Diphtheria.....	1	1	2
Whooping Cough.....			
Apoplexy.....	15	6	21
Congestion of Brain.....	1	1	2
Meningitis.....	2		2
Pneumonia.....	4	3	7
Bronchitis.....	8	2	10
Consumption.....	41	41	82
Bright's Disease (Nephritis).....	17	10	27
Uremia.....	3	4	7
Diarrhea (Enteritis).....	14	4	18
Gastro-Enteritis.....	1	2	3
Dysentery.....	3	1	4
Hepatitis.....	2		2
Hepatic Cirrhosis.....	2		2
Peritonitis.....	1		1
Debility, General.....	1	2	3
“ Senile.....	9	4	13
“ Infantile.....	2	5	7
Heart, Diseases of.....	20	7	27
Tetanus, Idiopathic.....			
“ Traumatic.....	3	3	6
Trismus Nascentium.....	10	9	19
Injuries.....	6	4	10
Suicide.....	1		1
All Other Causes.....	73	45	118
TOTAL.....	293	169	462

Still-born Children—White, 24; colored, 19; total, 43.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 18.03; colored, 25.35; total, 20.16.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.06
 Mean temperature..... 79.00
 Total precipitation..... 3.19 inches
 Prevailing direction of wind, north east.

December, 1897.

*Paullum sepultæ distat inertia
Celatu virtus.—HORACE.*

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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NEW ORLEANS

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(Established in 1844.)

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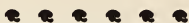
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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. L.

DECEMBER, 1897.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

AUTOGENOUS POISONING IN DISEASE.*

By E. D. BONDURANT, M. D., Mobile, Ala., Late Assistant Superintendent of the Alabama Bryce Insane Hospital; Professor of Nervous and Mental Diseases, Medical College of Alabama, Mobile, Ala.

The process of nutrition in every living cell includes the absorption of certain chemical compounds, atomic and molecular changes in the composition of the absorbed substances, the addition of these substances in whole or in part to the cell mass, and the transformation of their chemical energy into the vital energy of living tissue. One class of organisms possess the power of building up complex colloid or organic substances from simpler inorganic compounds. Another class of organisms have not this power, but require that organic matter be supplied to them. The class first mentioned accumulate and store much energy in the construction of organic from inorganic matter, but in their life-processes do not again liberate this energy. The second class, while likewise accumulating energy in some degree, in the discharge of their vital activities dissipate force in large amount. These two classes roughly correspond to the "vegetable" and "animal" kingdoms.

The dissipation of force, or, as we would say, of an animal cell, the "discharge of function" is attended by the disintegration of the previously built-up cell substance; that is, the split-

*Read by invitation before the Jefferson County Medical Society, at Birmingham, Ala., April 12, 1897.

ting up of the large, complex, unstable, slightly oxidized multi-atomic colloid molecules into simpler, more stable, highly oxidized crystalloid products. These disintegration products are of no further service in the biological economy of the cell; furthermore, many of them are injurious to the organism producing them, unfavorably influencing its growth and nutrition, or even under certain circumstances destroying its life. It is therefore obviously necessary that these products of retrogressive tissue metamorphosis be carried away, or otherwise disposed of. In the lower unicellular vegetable, as well as animal forms, this removal is simply effected by the solution of the excretory substances in and their diffusion through the fluid constituting the habitat of the organisms, this being facilitated by the crystalloid and highly diffusible character of the oxidized waste products. This, however, is at best a very crude and uncertain method, for if the volume of the fluid be limited, the waste products of cellular activity will necessarily accumulate to an eventually injurious degree, and may even cause the death of the cells from self-poisoning. A familiar illustration of this point is offered by the process of alcoholic fermentation. Certain yeasts, which are unicellular vegetable organisms akin to the bacteria, but resembling animal cells in their nutritive activities, grow in and feed upon glucose; the glucose is subsequently split up and excreted as carbon dioxide and alcohol, the former passing into and diffusing away through the atmosphere, the latter passing into the surrounding fluid, which it gradually contaminates. When the proportion of alcohol reaches about 14 per cent. its injurious effect upon the yeast cells is such that their reproduction and growth is entirely arrested—that is, fermentation stops—whatever amount of sugary food may remain. The higher forms of animal life, as a phase of the “physiological division of labor,” develop specialized cells and organs, to whom are delegated the duty of removing the products of tissue metabolism, this specialization reaching its greatest complexity in the higher mammalia and in man. Let it be remembered, however, that the disposal of the products of retrograde tissue metamorphosis is, in these higher animal forms, not a simple elimination by the excretory mechanism; many of the products pass through several phases of disintegration before arriving at the form in which they are finally thrown

off, being in some of these phases intensely poisonous, in others harmless and inert. The purity of the circulating fluids in these higher animals is then dependent not only upon the proper elimination of the fully formed waste products, but upon the proper successive oxidation of the first formed products of regressive change. This successive oxidation of waste materials, while not fully understood, is probably effected partly by the action of living cells, partly by chemical ferments in a manner analogous to the action of the digestive fluids upon food substances.

In man the excretory mechanism proper includes the lungs, liver, skin, intestinal tract and kidneys; the organs having to do with the oxidative disintegration of waste products are the liver, spleen, thyroid and other blood glands. The poisonous products of tissue metabolism, which are excreted with or without further disintegration, are numerous; some of them have been well known for years; others have been recently discovered; the existence of others still is only inferred from their effect upon the organism. Of the more highly complex and important forms the majority are alkaloidal substances to which the name "leucomaïns" has been given. These leucomaïns result from the regressive changes in living organic matter incident to cellular activity in all parts of the body; some are excreted without further change; others are decomposed and thrown off under similar forms; some of them are harmless; others are among the most intensely toxic substances known. Chemically, these leucomaïns are nitrogenous ammonia substitution products, some containing oxygen, some none. They are either amids or amins. Vaughan calls attention to the frequent presence of the hydrocyanic acid molecule in these compounds. The leucomaïns show a close relationship, in chemical composition as well as in action upon living tissue, to the vegetable alkaloids used so extensively in medicine, and to the ptomaïns which will be presently again referred to. The oxidative disintegration of leucomaïns finally results in the formation of urea, water, carbon dioxide and ammonia. There are, of course, in the excretions many substances, some of them toxic, which are derived from the leucomaïns, the more important being salts of soda and potash, and the oxalates; many of these simply pass through the body, being absorbed and excreted under the same form.

That the retention of excrementitious products may cause serious derangements of the vital mechanism has been a familiar fact for many centuries, although the current ideas regarding the immediate cause of the well recognized symptoms have not always been correct, for until recent times the collective symptoms of self-poisoning or "uremia," were attributed to the supposedly toxic influence of urea, or to salts of potash or ammonium. We now know that, while urea and some of the potash salts may be more or less injurious in large amount, they are many times less toxic than the more complex regressive products, the leucomäins. We must therefore remodel our conceptions of uremia, recognizing in it not "urea poisoning," but "leucomäin poisoning," and we must also grasp the fact that this condition of autogenous poisoning is much more common and a much more important factor in the causation of disease than has heretofore been believed.

Now, the subject of auto-poisoning is further complicated by the fact that the blood and lymph streams may be contaminated in other ways than by the process of true self-intoxication just referred to. The human animal takes into his stomach and absorbs the poisonous excretions of some of the lower forms of life, such as alcohol, as well as many poisonous vegetable alkaloids, such as are contained in tea, coffee, tobacco, opium and other drugs, all of which substances may, under certain conditions, prove to be highly injurious. Then, again, faulty digestive processes permit the entrance from the intestine of peptone and albumose, which are toxic. Furthermore, in the intestinal tract there are in progress continual fermentative and putrefactive changes, carried on under the influence of the numerous bacteria which are found in the intestine in normal as well as in abnormal states. By the action of bacteria upon nitrogenous matters, such as are always contained in the human intestine, there are formed certain alkaloidal compounds, ptomäins by name, which are, as has been mentioned, closely related to the leucomäins and to our familiar medicinal vegetable alkaloids. Many of these ptomäins are intensely poisonous. They were first discovered many years ago in the putrefying carcasses of animals, and in the intestinal tract are produced under the same circumstances which favor their development in decaying animal tissues. Under certain diseased conditions

they are produced in the alimentary tract in large quantity, and are thence absorbed into the blood stream. They constitute a most important group of toxic agents, and play a prominent part in the causation of certain pathological states.

To briefly recapitulate, the circulating fluids may be contaminated by retained excrementitious products, chiefly leucomains; by poisons generated in and absorbed from the intestinal tract, chiefly ptomains; by absorption of products of incomplete digestion, as peptone, and by injurious substances voluntarily swallowed, as alcohol *et al.*, alkaloidal drugs and improper foods. There is some difference of opinion as to the relative pathological importance of these several classes. The human organism produces within thirty-six hours leucomains enough to cause death were all elimination stopped, and the evil effects of their partial retention are sufficiently familiar in the acute and chronic states seen in Bright's diseases. The ptomains and other poisons absorbed from the intestinal tract possess, however, in addition to their directly toxic influence upon the cells and tissues, the further important quality of so irritating the excretory cells of the kidneys and other organs as to interfere with their functions and bring about a true secondary self-intoxication. And in practice we find that almost all cases of uremia are preceded by the ingestion of poisonous agents, or by the generation in and absorption of such poisons from the intestinal tract. The ptomains and leucomains nevertheless overshadow in importance the poisons introduced into the system in other ways, for the reason that being universally present they maintain the human organism on the verge of disease or destruction from self-poisoning, a danger which even minor derangements of nutrition and digestion may make a reality.

The blood and lymph in the human species possess a certain degree of toxicity in health, since the products of regressive metabolism are formed in all portions of the body and must be transported in the circulating media to the excretory organs. It is therefore obvious that the bodily mechanism must be adjusted to properly perform its work under this state of what we may call normal toxemia. It is equally obvious that the cells of the various tissues being entirely dependent upon the composition of the blood stream for the maintenance of their normal vital activities, any change in the composition of the blood must

be reflected in functional change in the tissue cells. There may be an increase in the total amount of toxic matters, or a diminution, or unaccustomed toxins may be developed, or some accustomed toxins may be absent, any of which conditions would result in functional perversion. The subject is still further complicated by the antidotal effect of these alkaloidal poisons for one another. The degree of toxemia under normal, as well as abnormal conditions, will depend upon the relative activity of the production and excretion of poisons. In practice almost all uremia or auto-intoxication states are due to a complication of causes, chiefly increased formation of toxins in tissues and in alimentary canal *plus* diminution in activity of excretion.

The symptoms of self-poisoning vary much, depending upon the character and amount of the toxic substances, their rapidity of production and the individual susceptibility or idiosyncrasy of the patient. Since the effect of a toxemia is a general and diffuse one, extending to all of the cells and tissues of the body, the symptoms include disordered activity and derangement of function in all of the organs. We find, however, at the beginning of our study of the auto-poisonings that the better known and more prominent and important chemical manifestations of increased toxicity pertain to the nervous system.

The reason for this is not far to seek: the nerve cell has for its function ready response to stimuli, is highly irritable, and is therefore markedly influenced by variations in composition of the blood quite insufficient to produce any perceptible effect upon other cells. The nerve cells also collectively direct the action of all bodily functions in their relation with one another, as well as determine states of feeling and regulate the conduct of the individual. Disordered activity in the nervous organs is then quickly translated into the objective evidences of disease. Again, let it be borne in mind that these autogenous poisons possess, in common with their better known relatives, the vegetable alkaloidal nerve sedatives and stimulants, the especial property of affecting the vital activities of nerve cells.

Studying the condition from a clinical standpoint we find most usually a group of nervous symptoms associated with disorder of the other functions of the body. The more important are headache and other pain, lassitude, mental depression, sluggishness and

disinclination to exertion, with incapacity for higher intellectual work, irritability, sensory perversions, sometimes restlessness, tremor, muscular inco-ordination, pupillary abnormalities, and in severe acute cases serious mental disorders, coma, stupor and convulsions, which may terminate in death. Associated with these nervous symptoms there are apt to be cardiac disorders, digestive disturbance and derangements of the kidneys.

The milder manifestations of auto-intoxication are well illustrated in an ordinary case of acute constipation, in which the poisons generated in the intestinal tract are absorbed instead of being thrown off with bowel discharges. Another good illustration is the condition we speak of as a "bilious attack;" this is a typical acute auto-intoxication, due chiefly to the fact that poisons absorbed from the intestinal tract are not destroyed nor rendered innocuous by the liver, as is the case under normal conditions. The general discomfort, headache and mental sluggishness accompanying these states of faulty elimination are sufficiently familiar.

The most frequent, severe and well recognized states of auto-poisoning are associated with disease or disorder of the kidneys; in fact any general discussion of the subject of auto-intoxication must include a consideration of the Bright's diseases, since no serious degree of auto-poisoning can exist for any length of time without disease of the renal organs. In most instances the toxic alkaloids or other injurious substances absorbed from the alimentary tract, cause comparatively little disturbance and pass unnoticed until they have by their previously spoken of irritant action upon the excretory cells so injured the kidneys and other eliminative organs as to cause retention of the leucomains and other poisons in the blood. What we call acute Bright's disease is without exception a result of irritation of the kidneys by toxic substances circulating in the blood current. Examples of this are offered in the acute renal complications of almost all of the bacterial diseases, notably scarlatina, la grippe, typhoid and other continued fevers, yellow fever, malaria, etc., and in the injurious effect upon the kidneys of the excessive use of irritant drugs and alcohol. I would especially emphasize the importance of the ptomaines absorbed from the intestinal tract as agents in the production of renal disease, many of these poisonous alkaloids seeming especially prone to cause serious derangement of

the renal mechanism. The chronic forms of Bright's disease usually result from frequently recurring acute attacks, or from persistence in the blood of small amounts of the poisons referred to.

The existence of any considerable amount of renal disease renders any auto-intoxication state much more serious, in that it precipitates the occurrence of some of the more serious uremic states, such as coma or convulsions, as well as gives rise to some forms of disease which until within recent times were not regarded as uremic in origin. Thus, puerperal convulsions are, as is generally known, uremic; many epileptic attacks are excited by uremic states; delirium tremens is an acute uremic mental disorder resulting from deficient excretion in consequence of injury to the kidneys by alcohol; and finally, many of the acute insanities are but the mental symptoms of auto-intoxication or uremia. The forms of mental disturbance chiefly seen in auto-intoxication conditions are puerperal insanity, the post-grippal and other post-febrile insanities, acute melancholia, many forms of acute mania and almost all cases of acute delirium.

These somewhat sweeping statements will not seem so improbable if it is borne in mind that scientifically viewed there is no difference between what we call "insanity" and the forms of mental disorder occurring during acute diseases to which the name "delirium" is given, or that the difference is at most one of degree only. When mental disturbance is obviously due to physical disease, especially if the disturbance endure a short time only, we call it delirium; if the physical disease is overshadowed by the mental disturbance, and especially if the physical disease is not discovered by the attending physician, the mental disorder is labeled insanity, and the patient often sent to an asylum.

Among the more serious consecutive effects of chronic auto-poisoning general arterio-sclerosis is prominently to be mentioned, this being usually associated with chronic interstitial thickenings in the various organs, or cirrhosis.

The presence in the blood of these toxic substances gives rise to certain pathological changes in the cells of the several organs, changes readily recognizable upon microscopic examination of the tissues after death. The condition is that to which the name

“parenchymatous degeneration” is usually given. The discovery of this lesion in any organ may be taken as *prima facie* evidence of a pre-existing toxemia. It is quite demonstrable in the nerve cells of the brain cortex, in the kidneys, liver and other organs in all cases which, during life, suffered from autogenous poisoning. A recognition of this fact, and the means of readily demonstrating the lesion in the human cortex will remove the acute insanities from the list of functional nervous diseases of unknown pathology, and place them among those conditions having a definite pathology and morbid anatomy.

From the standpoint of the practitioner, the most important portion of the auto-intoxication question concerns the recognition of the condition during life, and the possibility of its removal by treatment.

The diagnosis of the condition can be made by a recognition of the symptoms pertaining to the digestive, excretory and nervous mechanism, to which reference has already been made, supplemented by an examination of the excretions, of which the urine is the most important. The general symptomatology is almost coextensive with that of the dyspepsias and allied intestinal troubles, the Bright's diseases, and the acute mental disorders, including delirium of disease. Examination of the urine affords in all cases most valuable information regarding the existence and severity of auto-intoxication states. Toxic matters circulating in the blood current will irritate the renal cells and cause mild albuminuria and the presence of tube casts often before any other symptom is discoverable, and the number and character of the casts and the amount of albumin has a fairly uniform ratio to the severity of the auto-poisoning. There was a time when renal tube casts in the urine were interpreted as evidence of a serious and may be fatal form of Bright's disease, but this time has passed. We find casts and albumin in a large percentage of the sick and ailing, and recognize in them urinary abnormalities of great diagnostic importance, but as indicating often transient renal irritation rather than serious organic disease of the kidneys. We are also in some instances enabled to recognize the existence of intestinal fermentative changes with formation of poisonous ptomaines in that in such cases there is almost always an increase in the amount of *indican* in the urine. *Indican* is formed as a result of putrefactive changes in nitrogenous

matters, as are the ptomaines, but, unlike the ptomaines, is readily detected in the excretions by simple chemical tests which any physician may easily apply.*

The treatment of all states of auto-intoxication is properly carried out upon the same general lines, whatever the source of the poisons and the clinical symptoms may be. The first indication is to stop or diminish the production or absorption of the toxic substances, the second to facilitate the elimination of those already produced or absorbed.

One practical means for diminishing production of toxins includes the following: 1. Rest, mental and physical, by which katabolic tissue change is reduced to a minimum. 2. The administration of agents which limit or prevent putrefactive changes in the alimentary tract, the so-called intestinal antiseptics. 3. Regulation of the diet and attention to digestive function, to minimize the danger of absorption of peptone or other injurious semi-digested products.

The good effect of rest is quite marked in auto-intoxication states, and is especially noticeable in some of the forms of auto-poisoning with mental symptoms. Rest in bed constitutes a not unimportant part of the treatment of the acute insanities, as well as of the "overwork and worry" neurosis in which this toxic element enters as a frequent etiological factor. Conversely, the ill effects of excessive activity are well known, and find illustration in the familiar evil results of mental overstrain, and in the injurious influence of abnormal muscular activity. As bearing upon this last point, I will mention a bit of evidence which was obtained several years ago—in 1893—by examination of the urine of the students of the university at Tuscaloosa who were in training, for the foot-ball team, and undergoing an excessive amount of very violent muscular exertion, and at the same time taking a minimum amount of fluid. Of eighteen specimens of urine from as many muscular and seemingly healthy young men of 17 to 22 years of age, *not one* was found to be free from albumin and renal tube casts. My interpretation of this condition is that the abnormally large amount of toxic leucomaines formed as a result of muscular disintegration irritated the kidneys to the extent of causing albuminuria with

* *Vide* "Occurrence of Indican in the Urine of the Insane," by E. D. Bondurant, *Medical Record*, December 23, 1893.

tube casts, the degree of toxicity being, however, prevented from reaching a point where symptoms of poisoning would be shown by the activity of excretion from kidneys, skin and lungs.

As to the intestinal antiseptics, there is a long list from which to choose, the most generally efficacious being boric acid, naphthalin, beta naphthol, bismuth, the salicylates, iodoform, mercury bichloride, phenol, thymol, and charcoal. In states of intoxication of intestinal origin these drugs are in many conditions highly beneficial, whatever theoretical objection may be raised, and despite the statement of Osler and others to the contrary.

Our available means of increasing the elimination of toxins include the diuretics, diaphoretics and purgatives so generally employed in the treatment of uremic states. These are sufficiently well known to need no detailed enumeration, but I would remark in passing that of all of these agents calomel is the most valuable, being actively diuretic, as well as purgative and antiseptic. There is another remedy which has unjustly been permitted to fall into disuse—blood letting. This offers a sure and swift means of removing a percentage of the toxic substances from the blood. It has been, during several years past, employed with marked success in acute uremic conditions, and in the "epileptic state." The subcutaneous transfusion of normal salt solution in large quantities—a litre or more—is also of value in some cases of acute auto-intoxication, and may be advantageously combined with bleeding. The medical man of a generation or two ago who treated all ailments by blood-letting, sweating, purging and emesis was not so far wrong after all, and probably met with fair success in the relief of disease. We should not make the mistake of discarding these ancient remedies simply because at one time they were used indiscriminately and sometimes without reason.

One more point in the therapeutics of the auto-intoxications: there is no doubt that some of the vegetable alkaloids exert a direct antidotal effect upon certain of the toxic leucomaïns and ptomaïns, and so soon as we become more familiar with these auto-toxins and become able to recognize the differential symptoms of poisoning from the several substances, there will be excellent opportunity for an advance in therapeutics, along this line. At the present time there are two alkaloids which in some cases

of auto-poisoning may prove of marked benefit; these two are *morphin and atropin*, and where one of them fails to do good the other may be of value. Morphin is of especial value in acute uremic attacks.

The subject of auto-poisoning is one of great and growing importance, not only from a pathological and scientific standpoint but from the practical side as well. It is the line along which the greatest advance is being at this time made in medical science.

I have in this paper wished to call attention to the frequency of auto-intoxication; to the fact that poisons formed in the body cause many of the familiar symptoms of acute disease, as well as constitute the chief etiological factors in the dyspepsias and renal diseases and arterio-sclerosis; that the *mental* symptoms of disease, including the states of delirium and the acute insanities, are most usually outward manifestations of poisoning by autogenous alkaloids, and, finally, I have wished very briefly to indicate the lines of treatment offering most hope of success.

I am fully aware that I have made a hurried and necessarily unsatisfactory review of the matter, and have made dogmatic statements in lieu of demonstration. I trust, however, that enough has been said to elicit discussion of the more important points by members of this society, many of whom are doubtless more competent to deal with the subject than I am.

A CONTRIBUTION TO THE TREATMENT OF TYPHOID FEVER
—THE WARM BATH, A MODIFICATION OF BRAND'S
METHOD.

BY OTTO LERCH, M. D., NEW ORLEANS, LA.

During the recent prevalence of this disease in New Orleans, I had an opportunity to treat six cases, five of which occurred in one family. The first case that came under my observation was a man, 26 years of age, a native of Mississippi, of rather weak constitution. I was called in the evening and found him delirious; the skin dry and hot; temperature, 104½ deg.; pulse, 110; respiration not much exaggerated; tongue thick, flabby, indented and heavily coated; the bowels open, but no diarrhea; spleen enlarged; nausea and vomiting. He had taken a

calomel purge at the outset and quinin in five-grain doses three times daily. This was the only case in which there was delirium, and it lasted the first two days. The morning temperature ranged between 101 and 103 deg. and the evening temperature between 102 and 105 deg. The latter temperature I observed only a few times. After ten days it gradually commenced to fall and in sixteen days more it became normal. No complications of any kind during the course of the disease. The pulse never rose above 110, and was usually about 100; respiration never much exaggerated. In six weeks the patient was cured.

The second case was that of a young lady, 19 years of age, a native of this city. She was in fairly good health, though also of weak constitution. I had been physician of this family for some time, and had advised drinking boiled water long previous. At my visit I was assured that nothing but boiled water had been taken by the family. I found the patient in good spirits, but very nervous; skin moist, but hot; pulse 100; temperature 102 deg.; respiration normal; a typical malarial tongue; appetite and thirst little affected; bowels constipated; spleen enlarged. Next morning I found the temperature 100 deg.; otherwise no change. The temperature now commenced the typical typhoid rise, so that on the third day the morning temperature was 102 deg. and the evening 103 deg. The morning temperature remained the same for several days, the evening temperature rising occasionally to 104½ and 105 deg. The nausea and vomiting, as in the previous case, lasted a few days only.

Ten days later, a sister, twenty years of age, was taken ill. This young lady was the weakest of the family and broken down in health. Her case proved to be a mild and typical one for the first sixteen days; that is, the temperature rising for the first four days to 102 deg. and occasionally to 103 deg. in the evening, continuing at this rate for about eight days, and gradually coming down to normal. At this time, however, another sister, seventeen years of age, was taken with the disease; and from that day the temperature commenced rising. All the other symptoms returned and a very severe case of relapse was established. On the thirteenth day of the relapse, a papular eruption appeared on the back, the papules gradually forming small pustules and drying up; a few had to be opened and dressed.

The third and fourth case in this family presented the same aspect and history as the other two. A boy, eleven years old, was taken ill six weeks after I had made my first visit to this family. This also proved a severe case. When first seen in the evening his temperature was $104\frac{1}{2}$ deg., rising to $105\frac{1}{2}$ deg. the next evening; the morning temperature ranged between 102 to 104 deg.; bowels constipated, as in four out of six other cases. He was drowsy, but rational throughout the disease.

In all of the cases the outset was sudden, and in four rather severe. One commenced with a chill, all of them with chilly sensations. Nausea in all during first week, vomiting in two. Pain on pressure and gurgling in right iliac fossa in all; the rose-colored spots in five. The range of temperature typical in two cases; in all, however, the course of typhoid fever could be more or less recognized. Constipation in four, diarrhea in two cases. Hemorrhage in none, though the stools were slightly tinged with blood for a few days during the second week; in two, blood was taken from the finger and the agglutination of the bacilli obtained in all cases on the sixth or seventh day; in the first case the test proved negative on the fourth, but positive on the ninth day.

When called to the first case I found no symptoms of this disease, everything pointing to malaria: history, intermittence of fever on previous day and absence of abdominal symptoms. I ordered absolute rest; liquid diet, consisting of milk and beef broth; room darkened; ice cap to head; sponging of trunk and upper extremities, especially of spine and neck; muriate of quinin in ten-grain doses four times daily; bromide of sodium and ammonium to counteract the unpleasant effect of the quinin and nervous symptoms. I soon found that quinin had no effect on the temperature, and on the fourth day the blood was tested with negative result, but with positive when repeated on the sixth day.

In each of the other cases this treatment was repeated with but slight variations. A positive diagnosis of typhoid fever was made from the third to the sixth day. From that date the following treatment was substituted: A bath every three hours, when the temperature was 102 deg. or below, and every two hours when the temperature ranged upward of 102 deg. The bath was given by means of a portable tub devised by Dr. A.

H. Burr, of Chicago. It consists of a large rubber sheet, with rings attached near its margins by elastic tapes, and of a light wooden crib, with fastenings along the lower rail to hold the sheet. This frame folds by two movements into a compact bundle. The accessories are a siphon-shaped piece of hose and a bath thermometer. In using, the sheet is first slipped under the patient, brought up over the pillow, and tucked up each side of the body. The frame is unfolded and placed over the patient, resting on the mattress, surrounding patient and pillow. The edges of the sheet are then drawn up and over the top rail of the crib to the lower rail and fastened by its rings. This completes a light and perfect tub, capable of holding twenty gallons of water. It can be emptied by the siphon in four minutes.* I have found that it is more convenient to dispense with the siphon, to empty the tub by bending a corner of the sheet, and to remove the remaining water with a large sponge. In this way I have emptied the tub in one minute. After the bath the patient is wrapped in a blanket, carefully dried, and a gown put on. The temperature of the water at the beginning of the bath has been 95 deg., and gradually lowered to 90; only in a few instances have I lowered the temperature to 85 deg. During the bath the ice cap is kept on, and occasionally I have the face and neck sponged with ice water. The patient, when previously excited, now becomes calm and cool; feels comfortable, and will call for the bath when the temperature is rising.

I keep the patient in the bath from a quarter to a half hour. While in the bath the patient is rubbed by the nurse, and the water splashed over him, constantly moved, and he himself is requested to assist. In none of the cases has it been necessary to give more than eight baths in twenty-four hours, and these, with a few exceptions, were given during the day. There is no reason why twelve baths should not be given with benefit, if necessary. The temperature after the bath, reaching its lowest within half an hour, shows a fall of 1, 2, and even 3 deg.

In the severe cases the temperature, during a few days, especially in the evening, would commence to rise within an hour after the bath; in such cases I had recourse to sponging with water of the temperature of the room, which, during the hot weather, frequently ran up to 90 deg. In every instance the baths

*The above description is taken from "Tyson's Practice of Medicine," p. 39.

were given on the bed, thereby reducing the movement of the patient to a minimum. Given in this way there was never any shivering; the bath may be safely administered by a nurse without the presence of the physician. After the bath the patient generally falls asleep.

The effect of the bath consists not alone in a reduction of temperature; it has a strengthening and calming effect. In none of my cases have I noticed the dull, dusky faces so typical of typhoid fever, with which every physician is familiar. The face is always bright; the nervous symptoms but slight; gastric disturbances never lasting more than a few days; delirium in no case after the institution of the bath; the appetite good during the whole course of the disease, and the tongue moist. As we have to deal in typhoid fever with a case of intoxication, I attribute the therapeutic effect of the bath mostly to the absorption of water through the skin, thereby giving volume to the pulse, strength to the heart and *washing the tissues, carrying off the toxins and the waste matter through the natural channels*. It has further a calming effect upon the whole nervous system *without shock, without the slightest disturbance*.

Besides the bath, I have used strychnia through the whole course of the disease, commencing with $\frac{1}{60}$ of a grain, three times a day, and gradually increasing it, in some cases, to $\frac{1}{30}$ during the third week; I am of the opinion that this drug, acting as a nerve, heart and stomachic tonic, has at least contributed to keep my patient with a good appetite and assisted, as has been observed by others, to carry a weak heart over the crisis. Digitalis I found necessary in only two cases and only in small doses during the third and fourth week. Quinin was given, thirty and forty grains a day during the first few days, reduced to six grains in three doses during the twenty-four hours after a positive diagnosis of typhoid fever was made. In two patients with very irritable stomach, I discontinued the quinin entirely after that time. In the others I continued it throughout the disease as a heart and stomach tonic in two-grain doses, as mentioned. I chose the muriate on account of its solubility and the hydrochloric acid it contains. In none of the cases have I had any malarial complications, although each patient presented, in the beginning, striking malarial symptoms, so much so that in none of the cases was a positive

diagnosis made before the third day. This may be due to the large doses of quinin given in the beginning. I also gave turpentine, four to six drops morning and night; I am inclined, with others, to ascribe the absence of tympanitic distention to the use of this drug.

For constipation I used enemas of plain warm water, administered every morning cautiously with a fountain syringe, paying special attention to the slow introduction of the water to procure its softening effect. I found this fully sufficient in every instance. The diarrhea was easily controlled with camphorated tincture of opium.

It is curious to note that, of the five patients belonging to one family, one has had a relapse and three a recrudescence, the fever lasting from ten to fourteen days in the various cases. The relapse as well as the renewal of the fever could be traced in each case to emotion; that is, whenever a new member of the family was attacked, another one in whom the temperature had just reached the normal would show a renewal of the fever. Of course, it was found impossible to guard against this.

If we consider that the bacilli change the blood through the ptomaïns they produce, so that they finally have to die, it seems strange to meet with a relapse after the disease has seemed to be at an end. However, it is well known that by change of surrounding conditions we can produce changes in the biology of the various species of these micro-organisms. Some of the most virulent bacilli become harmless after they have been cultivated for some time on artificial media or in an unfavorable temperature; parasites are changed into saprophytes and colored bacteria into colorless in a similar way. If we find, on making the Widal test, that the typhoid bacilli when brought in contact with the patient's blood agglutinate and die, we must come to the conclusion that their cultivation in agar and in bouillon has altered their biology, that there is a difference between the bacilli used for the test and those flourishing in the intestines, in the liver and in the spleen, and that this difference is due to their cultivation on artificial media in the one case, and in the tissues, surrounded by the toxin they have produced, in the other.

The tolerance acquired by the bacilli against the specific toxin will probably vary, and in some, at least, it may be obtained in such a high degree that they will survive when every

symptom of the disease has disappeared. They finally will succumb unless a new inflammation, set up by a too early change of diet, by emotion or any other cause, changes and alters secretions and weakens the resisting power of the patient; we will then have a recrudescence or a relapse.

This seems to explain the phenomenon otherwise hard to understand. The more so if we bear in mind that only those *whose resisting power has been reduced* or who possess a predisposition are attacked by a disease.

Again, it seems strange that notwithstanding the greatest caution used after the first member of the family was attacked one after another should succumb. This can not be explained, unless the precautions ordered were not strictly carried out. Of course the closet was thoroughly disinfected; the stools, the vomited matter kept for half an hour in the bedpan after disinfection, before emptying; the drinking water was to be boiled and a bichloride solution kept on hand for the nurse's hands after handling the patient or her clothes; the latter were to be disinfected and to be boiled immediately after removal from the patient. I will mention that the cistern is in close vicinity of the kitchen, and the closet located between the two; a pipe leading from the cistern passes the closet into the kitchen, and that at the end of June, in July and August the water was very low.

Finally, I resume the points of treatment, on account of which the foregoing cases have been reported.

The *warm bath* achieves everything the cold bath does and more, I believe. It keeps the patient comfortable, and longing for the bath instead of being afraid of it; it leaves him refreshed instead of shivering. It reduces the temperature to a safe limit, just as the cold bath, but it does not reduce it too much as the cold bath may. "In the febrile reaction we see a powerful auxiliary very definitely favoring the work of the phagocytes. This febrile reaction has only to be inhibited, as was done by Pasteur in the anthrax of fowls, and animals naturally refractory to the affection succumb to the ravages of the bacilli."* The most favorable temperature for the bacilli is normal and below normal, though only an exposure of ten minutes to a temperature of 56 deg. will kill them, according to Sternberg.

* Lectures on Phagocytosis and Immunity, delivered at the Institute, December 29, 1890, by Elias Metschnikoff.

The warm bath favors the absorption of water through the skin much more than the cold, by removing the fat and opening the pores, thereby giving strength to the heart and volume to the pulse. It produces a calming and strengthening effect to the nervous system without shock, without disturbance and *it washes the tissues and removes the toxins from the blood* by the natural channels. The urine, scanty and high colored, assumes a pale color after the bath and becomes plentiful. So striking is this that my attention was called by the nurses to the large amount of urine voided. The dusky face, the delirium, the dry tongue, the sordes on the teeth and the typical typhoid expression is unknown after the regular administration of the bath. A cheerful countenance and an almost bright and clear face were noted in the above cases, even at the most severe stage of the disease. I do not wish to be understood as condemning the cold bath, and believe that at some stage of the disease a lower temperature may be required, but I recommend the warm bath, at 95 to 90 deg. as the regular treatment.

The second point is the use of quinin, in large doses, in the beginning, if the case presents malarial symptoms, as it seems to prevent malarial complications during the course of the disease. The constant use of small doses of strychnia as a nerve, heart and stomach tonic seems to be of value.

I am of the opinion that the warm bath treatment causes amelioration of the disease and increases the chances of recovery and might be tried with advantage in any case of inflammatory disease, caused by toxins produced by micro-organisms.

REMARKS ON LEUKEMIA, PSEUDO-LEUKEMIA AND PROGRESSIVE PERNICIOUS ANEMIA.

BY WILEY K. FORT, NEW ORLEANS, LA.

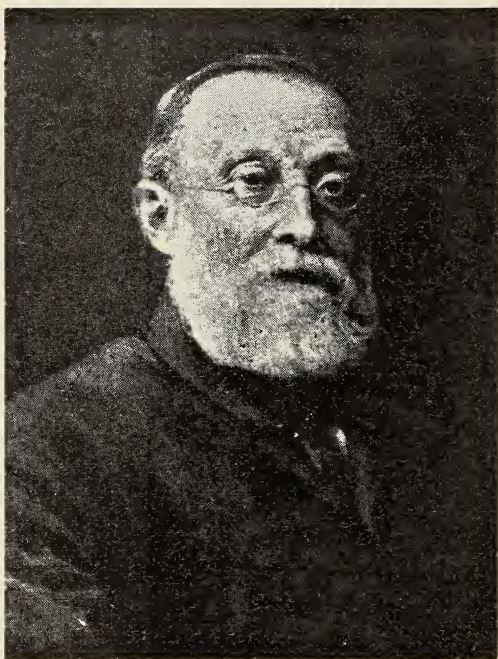
The symptomatology of these diseases is so well described in systematic books of practice that it would be out of place in a short paper of this kind. I shall only briefly direct attention to the therapia and the abnormality of the blood in these obstinate troubles. This abnormal condition of the blood is the result of perverted functional action induced by a multiplicity of causes. Undoubtedly chronic malarial poisoning is the most potent and

prevalent in the low swampy lands of the Southern States. The altered blood condition is the first signal of the malady to present.

In the beginning of the blood change, it is highly probable that the albumin and globulin diminish in nearly the same degree as the corpuscles. The secondary affections induced by dyscratic irritation, not only change and derange the plexus in the spinal cord, but pervert normal nerve distribution, thereby becoming a factor to hypertrophy of the lymphatic glands, the spleen and the lymphatic neoplasms in the various regions of the body. These results and anatomical structural changes have a tendency to produce fatty degeneration of many organs, especially the heart. The tunics of the eye are sometimes so much engorged that I have observed vision seriously interfered with. In fact, an extensive stasis of the entire capillary circulation exists, by reason of diminished nerve action; hence, endosmoses and exosmoses of the gland tissues are incomplete. Fatty degeneration of the heart, liver and kidneys usually puts an end to the patient.

I am quite aware that I have only in a desultory manner crudely touched upon a few of the salient pathological points of the diseases here referred to. The temporary improvement which is not an infrequent feature of the diseases under consideration might make us distrustful of the restoring effects of any agent; for some of the pronounced cases of idiopathic anemia have recovered without arsenic, or steel, or phosphorus or *homeopathy*, or any *pathy*, or any treatment. Physicians of this day distrust iron in whatsoever form as a remedy in idiopathic anemia. In fact, iron is to be regarded as a diagnostic factor in pointing out the differences between the multi-anemias and chlorosis. Iron may be said to be almost a *sine qua non* in the latter affection. Steel, wine and barks and divers forms of tonics have proven of little avail and not worth the trouble of giving in well established idiopathic anemia. Phosphorus in multitudinous combinations has been given in this and other cachectic conditions of doubtful origin. In company with many other physicians, I have given it without much benefit. In a few exceptional cases, I have given a tenth of a grain of phosphide of zinc, combined with quinin, twice or thrice a day, with apparent benefit.

Transfusion of blood has been practised since the seventeenth



RUDOLPH VON VIRCHOW.

century, and when skilfully performed there is little danger connected with it.

Usually there is a rise of temperature after the operation, but it speedily subsides. For a short time the person operated upon appears to be benefited, and it is doubtful in these cases whether it has done more than hold back for a brief period the unwelcome euthanasia. Biloeth, that gifted and justly distinguished author and scientist, discouraged transfusion. Parenthetically, I will add that Biloeth equally discouraged the idea that so many diseases are primordially induced by the microscopic organizations which are continually being found in the blood and fluids in various regions of the human body by so many distinguished bacteriologists of the present *ipse dixit* school. Arsenic can be given in combination with other indicated agents, in small doses, that it may be continued long enough to gradually bring about its best effect. If a cachexia exist, iodide of potassa, in three-grain doses, with two drops of Fowler's solution, in a drachm of one of the bitter tinctures exhibited *per oram*, twice or thrice a day, I believe to be good treatment.

THE CONTINUITY OF LIFE.*

BY RUDOLPH VON VIRCHOW, M. D., BERLIN.

(Translated by C. C.)

To treat a question admitting of no formal answer is difficult indeed, and I am well aware of the breakers ahead; still, the fault is not entirely mine, and I believe I can be permitted a few words of excuse: The organization committee of the congress had asked me to speak; I might have resisted the request of this "executive" committee had I not, at the same time, had the desire to expound certain theories. For, the time of meeting of the congress is at a particularly solemn moment—a few years more and it will be the twentieth century. While it is little likely that the twentieth century will bring forth anything which has not yet existed, it is none the less certain that we can not help expecting much from it. What, after all, has produced the

*Address at the first general session of the Twelfth International Medical Congress, Moscow, 1897.

century which is now at its close? This question has often been put to me and I now desire to enlarge upon the true achievement of the nineteenth century.

I freely confess that the seeking of the point at which medicine begins to form a part of biology has been one of my fads; hence have I devoted the last days of my life to establish and spread the idea that pathology should be considered a branch of biology. *For a man to be ill, he must first live!*

This is natural, but the delicate point is, in order to realize it in a precise manner, how to establish the relations uniting *life to disease*. Actually an old man, I am desirous that the next century should strive to sound the nature of this relationship; it is little likely that I shall see this new century, but what care I? For what I wish above all is that we may have the joy and pride to see pathology become a biologic science. It will not do to plunge too deeply into specialty; but, on the contrary, to look for positive progress in *universality* alone, as well for the world in general as for medicine in particular.

The problem of our century has been, precisely, to attain this universality.

One hundred years ago medicine almost exhausted itself in creating systems, classifications, in making fruitless *a priori* speculations; the wise then believed it sufficient to reflect and to reason in order to know; and this tendency troubled all minds to such an extent that dreamers and charlatans alone profited by it. They know how to fish in troubled waters, construct formulas, gather in the faithful and found schools. This is so true and so natural that it is easy to find examples about us and to behold the fanaticisms engendered by them.

This tendency, then, preponderated in the beginning of the century; it is sufficient to recollect the interminable triumphs of animal magnetism, as it traveled from Vienna to Paris; or again, to consider the numerous stages which have led from animal magnetism to hypnotism. Study animal magnetism if you will, but a most extreme reserve can not be too much advised, for we have made most instructive experiences on that score. Altenstein, one of the least prejudiced ministers we have had in Germany, was, under Hardenburg's influence, a fervid adherent of magnetism. One fine day it was proposed to found a chair of animal magnetism in Berlin. Altenstein founded two

at the University. And you must not think that this is ancient history. This fact, which it makes us blush to recall, occurred almost in our days.

Modern medicine, that which I specially desire to see transformed into a biologic science, took on its principal characteristics in the middle ages, an epoch which did not concern itself at all with *life*. At the London congress, desirous of gathering partisans in favor of the union of Pathology and Biology, I showed when and how the notion of *life* had first occupied the scientific thoughts of humanity; it was at the time of the *Renaissance* and the Reformation, in that century when, from so many standpoints, humanity threw off its shackles. And the first who then concerned himself with life was an adventurer, it is true, but an adventurer of genius, Paracelsus, a contemporary of Vesalius, the celebrated anatomist; he asked himself what was life and concluded that it manifested itself in two distinct forms: one for the whole individual, *vita communis*, and one for each part constituting the individual, *vita propria*.

A very marked distinction was established between these two forms, and it was endeavored to elucidate the relations between these two manifestations of life, a conception which was to receive its first scientific basis about two hundred years ago. Harvey, in fact, brought medicine back to the domain of reality by his discovery of the circulation; before him, it was thought that the arteries were not blood but air vessels, and when blood was found in the arteries the phenomenon was explained by an *error lauci*; Harvey, however, could not account for the passage of blood from the arteries to the veins, and it was necessary to invoke the porosity of tissues until Malpighi discovered capillary circulation. He first conceived the idea of looking at the interdigital membrane of a frog under the microscope and perceived the capillaries allowing the blood to pass from the arteries to the veins. He at the same time recognized the blood corpuscles and the filaments of fibrin; on that day, biologic medicine was born.

I merely wish, by this example, to show the essential difference between our modern school and the ancient speculative school.

At a time when mechanics and mathematics had realized great progress, the activity of the human body was considered as

purely muscular, and, since chemistry has developed so much power, all biologic theories have been renewed in the same direction. Very recently, on the other hand, serum therapy has injected new life into the ancient humoral doctrines. The study of serum therapy will assuredly be most instructive and most fruitful if we are fortunate enough to resist what is too seductive: in thinking only of serums there is the risk of losing the truly scientific path. This is, perhaps, the last opportunity afforded me to speak at such an important meeting; hence, an aged man, I may hope to be pardoned for whatever my words may have of too exclusive and too personal.

If during this century our minds have accomplished their emancipation, our object should remain the emancipation of medicine as well, by viewing it from a purely biologic standpoint.

Whence comes life? What are its origin and essence?

This question was to lead men to the grossest errors; they believed it could be solved by means of formulas, and, for instance, one of the solutions had received the name of *spontaneous generation*, in the supposition that live beings could in some way be born *de novo*. Thus, intestinal worms were known which produced no eggs, yet multiplied indefinitely; but the alternating generations and method of reproduction of these animals finally became known. Speculation and reflection for a thousand years would never have found the solution which exact researches alone could yield; fantastic speculation never finds the truth.

The gradual expansion of the use of the microscope gave birth to a new phase in the march of medicine toward biology, and the first to recommend with conviction the use of this wonderful instrument was no other but Ehrenberg, of Berlin. The extraordinarily penetrating researches of Pasteur finally demonstrated that the infinitely small themselves possessed germs, and that there could be no question of spontaneous generation even with them.

Besides, how are new parts generated in our own body? Here, also, it was thought that growth resulted from a spontaneous generation; but there again it has been possible, little by little, to eliminate this notion as to the generation of primitive elements; just as, in order that a being be born, it is necessary

that an antecedent being should have given him life, so are the isolated cells subject to this law of *hereditary succession*. The dogma of the continuity of life must be an article of faith for each one of us, for there is to-day no more origin nor source of life; it may be that these sources existed once upon a time, but we can find no trace of them at present, and we can be conscious only of the continuity of life.

On this basis rests our knowledge: there can be no disease, there can be no new growth unless primarily there be a living cell; it *must* exist and proliferate under the influence of an irritation, while this irritation may be due to bacteria or to any other noxious cause. Such hereditary succession of life was made known to us by the microscope. Darwinism owes its existence altogether to this doctrine, for it is nothing else but the continuity of cellular life applied to much more complex organisms.

I have sought to indicate briefly the principal points of this conception, and it is not difficult to find proofs of it everywhere; I simply wish that the next century, or, perhaps, even the last years of the closing one, may witness the establishment forever of this principle of the continuity of life. The systems of men are changeable and variable, like all which is human; yet, on the other hand, men, beasts and plants still survive, notwithstanding all the obstacles opposing their existence; likewise, our contemporary biologic science will remain a durable and inalienable conquest.

Correspondence.

THE BERLIN LEPROSY CONFERENCE.

[Special Correspondence to the JOURNAL.]

On the night of October the 10th the anticipation of every delegate and member of the conference was gratified, if the work done subsequently, in itself, did not warrant satisfaction. Professor Lassar had thrown open his apartments to the membership of the conference in a reception which was as beautifully managed as the subsequent meeting.

As we went into the apartments we were directed to a bureau where we were given a programme of the meeting, a list of the members and a little round disk, a *fac simile* of which is presented. Then we were ushered in and introduced to one another, and later used the disks in introducing ourselves.



The assemblage was notable: Hansen, the discoverer of the bacillus, was there; likewise, Neisser, Carrasquilla, Besnier, Arning, Ehlers, Neumann and a host of others. The reception was enjoyable in every way, the entertainment provided consisting of a feast of music and of

viands, interspersed with surprises and recognition of men who had been known, but never met.

The next morning the work began at 11 o'clock, as it did daily thereafter. Lassar opened the meeting, and after a short address, proposed Virchow as the president. The nomination was greeted with applause, and when Virchow assumed the office, Hansen and Lassar were nominated as vice presidents, with Ehlers as general secretary. There were, besides, secretaries of the several countries nominated: Abraham, from England; Kinyoun, from the United States; Havenith, for Belgium; Besnier and Darier for France, and Arning, from Hamburg.

Lassar, after his opening address, introduced the Minister of Public Education, who, after welcoming the members for the Emperor, introduced in turn the Minister of Agriculture, who delivered the welcome address. Thus, from the very start, the German government stamped the Leprosy Conference as its own.

A number of papers were read on the bacteriology and pathology of leprosy, among which those of Besnier, Hutchinson and Neisser were notable. These papers with all others read at the conference have been or are to be published in the proceedings, so more than a reference here would be inadvisable. A notable thing at the first day's meeting was the almost universal full and uniform dress of those present. The Americans were caught napping in this regard, and were prominent in ordinary morning coats. Every provision was made at the meeting place, the *Gesundheit's Amt* or Department of Public Health building.

Every morning a spread of sandwiches, tea, wine and beer was provided in the main hall just in front of the meeting room. There was a typewriter, a bureau of information, and also a branch postoffice, with an official in charge, who sent telegrams, provided stamps, etc.

During the days of the congress there were sixty places at the Royal Opera daily at the disposal of the members, and the Royal Theatre likewise was free upon application for seats. Nothing could have been desired more than was provided. Lassar was everywhere; always prompt to advise and ready to tell all that he knew.

The morning of the second day before the session began was devoted to visiting *the hospital for infectious diseases*, after which there was an exhibit made at the building of the meeting. The photos, wax models and diagrams proved quite interesting. Kitasato reported 19,898 lepers in Japan, with a diagram. Dohi showed an article in Japanese, written on leprosy in 808 A. D., and also presented a box of *moxa* used for cauterization. These consisted of what we know as "punk," made so as to stick to the skin. When this has been done they are ignited, and burnt to a coal quite rapidly. Grünvelt, of Rostow, had a fine collection of photographs. Cannheim, of Dresden; Ehlers, of Copenhagen; Grossman, of Liverpool, had some good lantern slides, and Besnier had a number of Baretta's wax models from the St. Louis Hospital, which he demonstrated. In Hallopeau's collection there was an odd specimen of a scaling tubercular type of leprosy. Kalindero, of Bucharest, exhibited a portfolio of water colors, and also some skiagraphs. Carrasquilla presented about thirty photographs of cases treated with his serum. Poor Carrasquilla, to have traveled so far and yet found so little at the end of his journey!

Unna, v. Babes, Doutrelepon, exhibited some beautiful microscopic slides, and demonstrated a number of new stains. Von Babes particularly drew attention to differential methods of staining the tubercle and lepra-bacilli.

This day was one of importance in the congress, as it determined almost conclusively that the bacillus was the cause of leprosy. Such advocates as Neisser, Hansen, Petrini, Doutrelepon, von Dühring (Constantinople), von Peterson, Arning, Raynaud, Bergengrün (Riga), Lassar, etc., argued in favor of

this belief, which none was ready to deny. On this day also the theory of the nasal spread of the disease was advanced, and generally conceded to be the prime point of entrance. Goldschmidt stated this fact in 1894, but not until to-day was the theory accepted.

Lassar inveighed against the baneful habit of nose picking as a probable incentive to the spread.

Jeauselme advanced as reasons for the nasal entrance of leprosy that—

- (1) Epistaxis is frequent.
- (2) That the mucous membranes often show the first sore.
- (3) That the handkerchief is perhaps the source of spread.

The question of contagion was discussed broadly, and although two or three members asserted that they had never seen contagion, they were willing to be convinced. Accepting this argument, there was no dissenting voice from the almost unanimous expression as to the contagiousness of the disease.

When the day was done, those of us who came to fight for contagion were gratified that the question had not been brought to contest, and your correspondent for one felt still more convinced that where the contagiousness of leprosy is denied, it is so denied by men who have either seen no leprosy, or by those who have seen so little that they have forgotten what they knew.

We became better acquainted, the members of the Conference, at the Chancellor's, where we were received on the night of the second day by Count Hohenlohe himself. This was the affair of the week. The reception was held in the palace, which was for so long identified with Bismarck, and one almost expected to see Bismarck there, so thoroughly was his spirit in the place. Just as we passed the landing, the Chancellor stood to meet us. One could not well appreciate ability in a man of the Chancellor's personality. His face was expressionless, and was carried on a body which resembled what we have associated with Alexander Stephens, and as small. He looked anywhere from seventy-five to one hundred and twenty. The ubiquitous Lassar was at the Chancellor's right, and as each member of the conference came, he was ready with his name and title, and rattled one after another off as a child his "A B Cs," and, strange to relate, he used the language of a guest as freely as he did his name and title.

Count Posnodowsky, the Minister of Education, was also in evidence. At this reception the polyglot character of the meeting was thoroughly exemplified. I saw a Jap and a Frenchman getting along beautifully, though the former could only speak Japanese and German, and the latter only French and pigeon English. It was here that I noticed the modesty of Virchow. He had found a corner and was quietly sipping a glass of beer, absolutely unconscious of the dignity and superiority which his Iron Cross and other decorations conferred; he was also as gracious as modest, ever approachable and never too busy to find a word for any one, and yet this was *the* Virchow.

After the Chancellor's, the Club of Berlin kept open house, and it was late when the meeting adjourned.

October 13.—This morning we were shown, by sections, through the Department of The Public Health, in which building the meetings were held. The building has been recently erected and equipped for the purposes its name implies. There is no department which is not complete. The stables for horses, the rabbit hutch and colonies of guinea-pigs, rooms full of goats and dogs, monkeys and birds were shown. Laboratories for bacteriologic, biologic, chemic and for pharmaceutic experiments were elaborately equipped. The products of the German government, at home and abroad, were arranged in careful exhibits after assays and analyses had been properly made and tabulated. We were shown all these, from floor to floor and from room to room. I was struck with the elaborate arrangement for photographic and for micro-photographic work; also with the up-to-date arrangement for the study of every modern discovery in bacteriology. Disinfection chambers were arranged for the attendants, lest germs should be carried from one laboratory to another to interfere with experiments. The only thing I missed (and I must say after the jaunt, regretted) was the elevator. One thing of interest was the oven with which Koch made his cultures for the first tuberculin. It was primitive indeed, and heated with ordinary coals. Now it is rusty and its hinges move with difficulty, and as a useful thing would not bring more than 50 cents as junk.

The meeting of this date was as interesting as that of the day before. Dehio called attention to the fact that he had found the sheaths of nerves and muscles involved in the leprous pro-

cess. He had observed here infiltration cells, and in the nerves themselves had found cell nests. It was this day that Unna appeared against the world in his "extra cell" idea. Unna was rather dogmatic and said that he had made his discovery ten years ago, that he had believed it for these ten years, but it probably would take ten years more for the other leprologists to agree with him. And so he and Neisser disagreed. Heredity as an element, or as a factor, was discussed to-day. Von Dühring believes in predisposition as with tuberculosis, but thinks contagion the *causa vera*, and not heredity.

Laverde says that leprosy in his country (Colombia) is endemic, and contagion is alone the pathologic cause.

Kübler, Ehlers and a number of others arose to assert unqualified endorsement of contagion, and equally unqualified denial of heredity.

Alvarez, of Honolulu, advanced several arguments against heredity, which deserve mention here:

The rapidity of the spread of the disease in the Sandwich Islands forbids heredity as a causal factor. The proportion of births in the first place is too small and out of all reason, compared with the ages of the patients, because it is known when leprosy was introduced into the Sandwich Islands (1844). Says Alvarez: "*I have never seen a leper born.* The youngest case was 3½ years old. Hawaiian lepers seldom have children." Hansen urged the Norwegian settlement in Minnesota as a positive argument against heredity. The discussion was quite complete, and lasted during most of the rest of the meeting.

Neisser proposed a resolution having as its object a committee to publish a journal on leprosy, to be rendered in 1900 at a proposed meeting of this conference, or congress. Although it was discussed at much length, the resolution was finally abandoned as not being feasible.

October 14.—"*Cum Gloria Lassaris!*" So said one of the Berlineses who, when asked if he could have done as well, simply shrugged his shoulders and said: "*Lassar is a good manager.*" And Lassar made them all perform, for never was a more glorious success accorded any assemblage as was this one of Lassar's, and all this digression because Lassar showed us how a public clinic and hospital could be managed successfully

and systematically side by side with a private hospital and consultation. Old Mosler, of Strassburg, proposed a *Hoch* to Lassar, which the members of the conference gladly gave as we left the clinic.

The meeting was called at the usual time. Unna in classifying leprosy recognizes three types, and mentions a papular variety. Hansen says leprosy is either tubercular or anesthetic.

Dehio urged the abandonment of the term "mixed." Virchow interluded here, urging that leper hospitals should not be called "Leproseries," but "Leprosariums."

Some cases were shown with syringomyelic evidences by Stanton and von Dühring with a request for a diagnosis; when Ehlers, Besnier, Hallopeau, Gluck, Thiberge, Scherbe, Raynaud and yours humbly had agreed that these were undoubted cases of leprosy, the pathologists and those in affinity with the neurologists were satisfied to once more wait for a *post mortem* to prove that in the glioma there were no lepro-bacilli.

Kalindero argued for a differentiation between leprosy and these peripheral neurites, and his argument was interestingly demonstrated with X-ray photographs of the diseased extremities, showing, so he claimed, a difference in the bones. A discussion of serum treatment followed, in which poor Carrasquilla suffered. Excepting by his own countrymen, no results were reported from the use of his discovery, and the Germans, the English, and others came down in full force to deny not only the usefulness, but to argue dangers from its employment.

Unna proposed iodo-thyroidin; Kalindero suggested oil of petroleum; Ehlers spoke of the importance of mercury in relapsing leprosy, and referred to Crocker's case. Your correspondent had an opportunity on this day to read an abstract of his paper on anti-venomous serum in the treatment of leprosy, and it struck the audience as not only original, but as startlingly bold.

When the discussion on treatment had ended, a proposition was made to establish a Leprosy Society, and a resolution was offered, viz.: "That the Leprosy Conference, assembled in Berlin in 1897, shall appoint a commission, composed of twenty members, with power to increase their number, which shall confer and prepare a plan for an International Leprosy Society." The resolution was carried without discussion, and

Virchow was unanimously elected the honorary president of the proposed society. He gracefully acknowledged the compliment, and later announced the membership of the commission, as follows: Besnier, France; Sederholm, Sweden; Hansen, Norway; Ehlers, Denmark; Glück, Austria; Abraham, Great Britain; Dyer, United States; von Dühring, Constantinople, Turkey; Dehio, Southern Russia; von Petersen, St. Petersburg; Campana, Spain; Engel-Bey, Turkey; Kalindero, Roumania; Neisser, Breslau; Lassar, Berlin; Köhler, Berlin; Falcao, Portugal; Alvarez, Hawaii.

The relation of Ashmead to the Berlin Conference was well shown, when a resolution of his, relating to a conference in 1898, was quietly dropped without discussion. Ashmead wrote in the *Sei-I-Kwai*, in far-off Japan, a vituperative article, which reflected upon the intelligence, upon the purpose, and upon the ability of the *personnel* of the conference in Berlin. Ashmead conceived the conference and, because men of world-wide honesty and reputation were making it a success, he tried to discourage interest in it by writing abuses of these men. In justice to Goldschmidt, to Hansen, to Arning, to Lassar, and to Ehlers, who suffered most, the above should be said. Goldschmidt allowed himself to be led into the organization of a conference because of the object aimed at, and washed his hands of Ashmead and his methods as soon as he saw behind the veil.

The night of the 14th, the Berlin Dermatological Society entertained us, and in the same gloriously courteous manner in which all Berlin had welcomed us. Several interesting papers were read, and the society marked the occasion by electing Virchow, Besnier, Neumann and Kaposi as honorary members.

Several exhibits of interesting photographs were made, among which was a remarkable collection of diseases of the nails, collected by Dr. Heller.

A spread, at which all kinds of eatables and drinkables were served, ended the entertainment.

October 15.—When the meeting had opened, Hansen proposed a resolution, which in substance dealt with the question of isolation and the method of enforcing it.

“(1) All cases of leprosy should be reported, and this should be made compulsory.

“(2) Each leper should be isolated.

“(3) Every government must recognize the necessity and the method of effecting isolation under its own social conditions.

“(4) That it be recommended to every government that isolation is necessary to prevent the spread of leprosy, and that the health authorities be authorized to act under the regulations of civil and national assemblies.”

A resolution was also proposed by Dr. Pindikowski and adopted, to the effect that persons affected with leprosy should not be allowed to emigrate, and that passports should not be given them.

The discussion was practically confined on this day to the question of isolation, and it was open, broad and free. At one time an attempt was made to close the discussion, but the general opinion was so thoroughly against this that the call for “question” was withdrawn. As many men as could spoke about and for isolation; none against it.

The vote on the resolution proposed by Hansen was deferred until the following day to allow even further discussion before this question of greatest importance to this conference should be decided.

In the afternoon we went to the Emperor. Here, in all truth, Germany recognized the conference of the week past as an epoch. It was stamped with the approval of the government and of the Emperor as a factor in human civilization of to-day. Its meetings were fully reported in the daily papers, its members entertained by the government itself, and the purposes of the meeting strongly brought out before the public and before the officials of the government.

Germany has but few lepers, but as Lassar put it: “We must not wait until leprosy occurs in every city. What land is not a leper land? We must start now to prevent a preventable disease by throwing about it the legislation necessary to extinguish it.”

Full dress, white ties and white gloves was the dictum; a special train to Potsdam, the royal carriages driven by imperial coachmen carried us to the palace. There we were lined up in a semi-circle—France, Norway, Germany, Greece, Spain, Portugal, Great Britain, United States, Turkey, the Americas, and then the population in general. What shabby looking uniforms

we wear compared with those we saw. Greece and Turkey were resplendent in gold and lace. We were received into the Mus-selsaal of Frederick the Great, with naves and arches covered and sparkling with curious shells, pebbles, rocks and coral devices; the doors were made of stalactites; one piece of wall was almost a mirror with the pearl shells of the East Indian scallop. Elks' horns decorated the walls. A half dozen whitened heads were pointed out to us as a portion of the Emperor's victories this year. While we stood on one leg and then another, almost at double quick, in came the Emperor, followed by the Empress and maids of honor and the Emperor's staff. We spent an hour at the palace, and each one talked and ate and drank with royalty. The same livery, the same train carried us back to Berlin.

The next morning the general secretaries read a report of the meeting in *resumé*.

“At the close of the debates of the International Leprosy Conference, held in Berlin, October, 1897, the secretaries have the honor to present the following short report as the general conclusions of the conference. They believe that such a *resumé* will be especially desirable for those who have been delegated by their respective governments and who have to make reports on the results of the conference.

“As might be expected, a considerable portion of the discussion was relative to the *bacillus lepræ*, which the conference accepts as the virus of leprosy, and which has now been known to the scientific world for upward of twenty-five years through the important discovery of Hansen and the able investigations of Neisser.

“The conditions under which the bacillus grows and develops are still unknown, as well as the way of its invasion into the human system, but from the discussion of the conference it seems probable that unanimity of opinion will soon prevail in reference to its modes of subsequent dissemination within the human body.

“Very interesting observations have been brought forward in connection with the elimination of the bacilli in large quantities by means of the nasal and buccal mucous membranes of lepers, and it is desired that such observations be confirmed where opportunities occur.

“The question is of very great importance to those who are entrusted with the care of the public health, as leprosy is now acknowledged to be a contagious disease. Every leper is a danger to his surroundings, the danger varying with the nature and extent of his relations therewith, and also with the sanitary conditions under which he lives. Although in the poorer classes every leper is especially dangerous to his family and fellow-workers, cases of leprosy frequently appear in the higher social circle.

“The theory of the heredity of leprosy is now farther shown to have lost ground in comparison with the at present generally accepted theory of contagiousness.

“The treatment of leprosy has only had palliative results up to the present time. *Serum therapy has so far been unsuccessful.*

“In view of the virtual incurability of leprosy and of the serious and detrimental effect its existence in a community occasions, as a logical issue of the theory that the disease is contagious, the conference considers that isolation is the only radical and rapid method for its suppression. After considering the good results which have followed the management of leprosy in Norway, where the attempt at isolation of those diseased has been methodically carried out, and where laws have been enacted to enforce the isolation of lepers who can not take care of themselves, or who live under conditions which may increase the danger of their existence, the conference recommends this method as advisable in all those countries where the social and legal conditions permit.”

When this was over Virchow read the resolution of Hansen, and when there seemed to be no desire for discussion it was put and unanimously carried. On the way out I saw Virchow walk up to the lunch table, and say to the waiter: “I will take a glass of beer; how much is it?” “It costs nothing,” said the waiter. Virchow was astonished. “You have had free beer here every day,” said he, “and I did not know it.” I walked up and touched glasses with the old man, and as we drank, he said: “Good-by, doctor; give my love to all my friends in America,” and the modest old man walked off as if he were as humble as I, or as any unknown at the meeting. The day before, he put his name on a photo etching of himself, which I had carried to him for that purpose, and he was pleased at the

compliment "to himself." When I think of the bombastic, egotistic other men at the conference, it makes me nostalgic.

And this was the end of the eventful Lepra-Conference, one which Ashmead ridiculed because he was not ringmaster and manager, as well as dictator—a conference far-reaching in its influence, a conference at which were one hundred and fifty members, forty-four delegates representing twenty-two governments, all carrying away with them the touch of earnest need for concert of action on the part of each, when he should reach his special part of the world.

The leaven of good work has been set, the seed planted and the work must grow to save the next century from the curse of the XII.

I was waked by the band Sunday morning, and saw a host of soldiers going to the palace for new flags, and they marched merrily and looked well, and they were men. Long live Berlin! Long live the Emperor! Long live the Lepra-Conference and its work!

ISADORE DYER, M. D.

THE BORDEAUX HOSPITAL FOR CHILDREN.

Editors New Orleans Medical and Surgical Journal: I trust you may find of some interest to your readers a few brief notes that I took during a recent visit of inspection to one of Bordeaux' most flourishing and modern hospitals, "L'Hôpital des Enfants" (Hospital for Children).

The hospital, situated not far from the central portion of the city, occupies alone a large, well drained lot, and is separated from the neighboring buildings by a pleasing expanse of smooth green lawns, decorated with tropical shrubbery and luxuriant flower beds, which lend to the exterior an aspect suggestive of cheerfulness and comfort within. For purposes of ventilation and isolation, the hospital building proper, an edifice of three stories, is divided into six different apartments, joined by large, airy galleries in the form of a quadrangle. Besides this, there are situated in another part of the grounds two separate buildings, one being devoted to the isolation and treatment of infec-

tious diseases, and the other to hydrotherapy, both of which present very interesting features, of which I shall speak later.

Upon entering the different departments one is most agreeably impressed with the general appearance of cleanliness, the thorough ventilation of the large wards, with their high ceilings, well oiled oaken floors and neat furnishings; also, with the details observed, not only with a view to the exercise of hygienic measures, but also for the comfort and management of the little patients.

Six hundred beds are distributed throughout the hospital, a small number of which are assigned to orphans and abandoned infants, for whom the institution serves as a refuge, and the rest to the sick inmates. Four large wards, with the two operating rooms attached, are assigned for surgical cases and are under the supervision of Professors Piéchand and Monod. To the other wards are assigned the medical cases and, as in surgical services, the persons are assigned according to age. None are admitted to the hospital over the age of fourteen years. The institution being supported solely by the municipality of Bordeaux, only children residing in the city and the homeless are accorded the free protection of the hospital. Those patients brought in from surrounding country and whose parents are not indigent are required to pay the small fee of two francs per day for their sustenance.

In addition to the medical and surgical services a separate apartment is set aside as the "crèche," where, by means of modern incubators and other essential appliances, combined with wet nursing, the very young and premature infants are cared for. They claim this to be a model crèche and their incubating methods to be of the latest approved regulations.

Special attention is given by the hospital staff to the value of hydrotherapy as a hygienic and curative agency, and a special building has been constructed and dedicated to this line of work. In one part of this bath house are found all the requisites for a Turkish bath, such as hot air chests, douches, and shower baths. Another room is fitted up with three shower baths, a needle bath, a *bain de siège*, a douche, and a cemented pool or tank in the centre, designed for affording a cold plunge. There is, besides these well filled apartments, another room containing a number of small tubs, each supplied with cold and hot water

and employed as foot baths. Thirty smaller rooms or closets, each supplied with a porcelain-lined tub, afford baths of pure or medicated waters. The strong odor of sulphur emanating from these speaks strongly in evidence of the frequent employment of the sulphuretted baths.

Dressing rooms, departments for linen, complete the interior furnishings. The building is heated by steam, and the temperature in each department may be regulated as desired. Being unable to obtain any accurate statistics in regard to the number of cases treated by hydrotherapy and the result obtained thereby, I was only able to learn that the baths were used extensively and satisfactorily, especially in the treatment of lymphatic and delicate children, and in those chronic affections for which hydrotherapy is generally recommended.

In another small building, well isolated from the rest and almost hidden from view by a wall of thick shrubbery, is the department for the care of infectious diseases. This little building is very modern in its appointments and well constructed for the purpose for which it is ordained. The interior, completely finished with glass plating as to the walls and ceilings, is so arranged that each room, of which there are eight, each containing two or three beds, can be securely shut off from the rest and the whole quickly and readily disinfected. No furniture or fixtures are employed which can not be subjected to the disinfecting process, which consists in a thorough douching with strong solutions of bichloride of mercury or carbolic acid, and fumigation with sulphur. Every room is thus disinfected whenever the treatment of a case is finished.

All infectious diseases are admitted; each form is isolated in its special department and subject to appropriate treatment. Whenever a child is brought in not presenting sufficient well marked symptoms to admit of a positive diagnosis, it is promptly assigned to the department for suspects and isolated until further developments take place.

Cases presenting diphtheritic symptoms are at once injected with antitoxin, placed in their special department, where the atmosphere is continuously kept warm and moist with steam. It is interesting to note that in their management of diphtheria no local treatment is employed and intubation is never resorted to. Increasing and exhaustive dyspnea is at once relieved by trache-

otomy. In a series of more than a hundred cases treated there since January 1 of this year, eight have been subjected to tracheotomy, with favorable results in all the cases thus treated. I was unable to learn the rate of mortality of their diphtheric cases, which they consider, however, very low.

The great importance of this department can be readily understood when we consider the large number of children gathered together in the hospital and the disastrous results that would follow an epidemic of any of the serious infectious diseases to which childhood is unfortunately susceptible. The measures seem to be effective, as is witnessed by the fact that no epidemic has ever been shown to spread from cases treated therein, nor could it be ascertained that any case under treatment in the department for one disease had ever contracted any other infectious disease from the others under treatment.

Other facts about the institution might be of interest, but of these I am unable to make mention at present. The general management is much the same as of our hospitals at home, except, however, that the medical staff, which consists of six visiting physicians, who have their chiefs of clinic and four internes, have full control over all the medical affairs of the hospital. It is well organized, well equipped. Bordeaux can justly be proud of it.

I remain, dear sirs, sincerely yours,

GORDON KING, M. D.

FROM OUR NEW YORK CORRESPONDENT

A branch of the *Maternité Lion*, of Paris, was opened in this city on October 21, at Eighteenth street and Fifth avenue. This institution has for its object the care of premature and feeble infants. It is supplied with a large number of Lion's incubators and has a thoroughly equipped nursery. Some idea of the work that this "charity" is expected to do may be gained when we learn that in France out of 850,000 children born every year 130,000 perish quickly either because they come into the world too soon, or have insufficient vitality to survive. During the first three years of his work Dr. Lion took 185 babies and saved 137. This means that 72 per cent. of the children that in the

natural order of things would have perished have been enabled to live, many of them strong and healthy. Since January last, sixty-two babies have been taken at the Paris Maternité; eleven of these have died. Six out of the eleven weighed less than two pounds, and when a child weighs less than two pounds its case is considered hopeless. There are already a number of children in the new institution and it probably will have a wide field of usefulness in the future. Dr. Lion thinks that every city of any size should have such a charity.

Lieutenant Peary's six Eskimos, who were left at the American Museum of Natural History by the Arctic explorer, were sent to Bellevue Hospital on the first of this month in a serious physical condition. One of them has pneumonia and the other five have severe attacks of bronchitis. Coughs and colds are entirely new afflictions for Eskimos, as in their own country they are not subject to troubles of this kind. This fact has put the doctors at sea in regard to the progress the disease may make, but the one who has pneumonia is considered dangerously ill. The physicians think that the cases will be exceedingly interesting. When on exhibition they were clad in their furs and perspired very freely; at other times they suffered very much from the heat even in the ordinary clothing of this climate, and it is thought that in the endeavor to become comfortably cool they have contracted their colds.

Dr. Blauvelt, chief of the division of medical inspection of the public and parochial schools of New York, submitted the following report for the first quarter under this new system:

The total number of pupils examined was 163,812, and the total number excluded 4183. Among those excluded were found to be 51 true cases of measles, 91 of diphtheria, 20 of scarlet fever, 11 of croup, 26 of whooping cough, 117 of mumps, 702 of contagious eye diseases, 2735 parasitic diseases of the head and body, 93 of chicken-pox and 175 skin diseases. The total daily average attendance for the three months and three days was 149,520. The number of visits made to the schools by the corps of inspectors was 14,346, and the number of schools visited daily was 217.

This report when studied in detail shows beyond question the importance of this bureau in its protective value to the public in general, and to the school children in particular. It shows how

easily the contagious diseases of children may be and are disseminated. The system meets with the approval of all school teachers and such parents and guardians as take an interest in the health of their children.

Another step has been taken which will be of much benefit to the school children. It has at last been decided that they are to have play-grounds, and surely where there is such a dense tenement population, they need them badly enough. One of the first decisions arrived at by the committee appointed by Mayor Strong was that, in the future, no public school was to be erected in New York without an open-air play-ground. The want of ground is, of course, the greatest difficulty to be overcome, and the builders, in their perplexity, turned to the roof. This idea will soon be carried into effect, and we will have the novelty of aerial play-grounds.

Apropos of the fact that medical congresses seem to have become rather prevalent of late, we note a criticism in a recent edition of the *Herald*. The writer objects to them because they are open to everybody, and they subject worthy and respectable physicians to unpleasant promiscuities; they provide the charlatans and unscrupulous with the means of floating their schemes for self-advertisement under the auspices of a respectable organization. So long as he pays his fee the most contemptible quack can take his seat with the most worthy lights of the profession. He reads his sordid effusion and has it in the reports of the congress along with the most valuable works. The uninitiated public and members of the profession who can not distinguish the true from the false in a work on some highly specialized subject are misled. The time is often too limited to permit of the discussion of papers. All good scientific work would reach the public through medical literature. Too often sweeping conclusions are drawn and wholesale advice given which is based on one or two cases. If we believe the prophecy of this critic* we must consider medical congresses doomed to become a thing of the past.

The corner-stone of the new building of the Bellevue Hospital Medical College was laid on the afternoon of November 13. The structure will be five stories high, of red brick and trimmed

*And we are inclined not to do so. We believe important reforms can be made, but that too many advantages are to be derived from congresses for the latter to be abandoned in our day.—EDS.

with limestone. It will cost about \$200,000, which has been subscribed by the members of the faculty. It stands at the corner of Twenty-sixth street and First avenue, next to the Carnegie Laboratory, and will be ready for occupancy next spring.

The president of the board of trustees presided at the laying of the corner-stone and Dr. Lewis A. Sayre, Emeritus Professor of Orthopedic Surgery, after the stone had been lowered into place, dedicated the building to the cause of suffering humanity. Under the stone was placed a copper chest containing an account of the inauguration of the college in 1861, the alumni catalogue containing a history of the college, a history of Bellevue Hospital, lecture cards and circulars since 1861; diphtheria anti-toxin; a tube containing spores of *Aerogenes Capsulatus*, the bacilli of a form of gangrene discovered in April, 1896, which are the oldest identified spores of this species in the world.

Dr. Langdon Gray, representing the alumni, Rev. Dr. Roderick Terry, of the trustees, and Dr. John S. Billings, representing the medical profession, delivered addresses in the Carnegie Laboratory after the exercises.

E. F. S.

AT THE ANNUAL MEETING of the American Medical Publishers' Association, held in Philadelphia on May 31, the following resolution was introduced and adopted:

“WHEREAS, The Imperial Granum Company has announced the withdrawal of all its advertising patronage from the lay press, and signified its intention of using medical mediums only in the future, therefore, be it

“Resolved, That the American Medical Publishers' Association, in session at Philadelphia, hereby endorses and commends this action of the Imperial Granum Company, and further recommends this course to other manufacturers who desire the support and co-operation of the medical profession.”

IF THE druggist found that every attempt at substitution cost him the physician's patronage, he would soon become tired of it, and would supply exactly what prescriptions call for.—*Therapeutic Gazette*.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

CHRISTMAS, 1897.

The cyclic seasons bring their days of moment and of celebration, and as such we have grown to know the Christmas tide. Long ago this day of holy rites was changed into a day of celebration in which the young and old alike made festive, in which the cares and burdens of the year gone by are laid aside for a time at least. In every household the Christmas tree is raised or the stocking hung for the visit of St. Nicholas, and even where the tree is absent and the stocking too full of service, or of holes, to hang, the spirit of the day weighs sadly, or joyously, as may be.

It may not seem out of place for us, as the season is at hand, to wonder what the Christmas tree in our household medical may bring. Like wise children we are on the eve of expectancy and the dawning of the morning should find us awake to the possibilities of our hopefulness.

Certainly we have not suffered in the past, for progress has freely marked each year of late with its signs of advance. Here at home our poor city has suffered for the lack of certain applied knowledge of the yellow visitor, but mayhap we are to find that he will hide forever before another Christmas comes.

Like an army on the day before the battle, the medical profession is constantly ready for the advance against disease, led by the masters and marshaled by the energy and the purpose of our high calling.

Christmas is no day for retrospection, for care and worry should then be laid aside in honor of the birthday of promise and regeneration.

How gloriously the purpose of human life demonstrates itself by such days as these! Even at this time when the forces of

nature are supposed to be resting, latent in their hibernating sleep, the day itself exemplifies the germination of force, of hope, of good, of joy—all antitheses, in fact, of Fate's dimmer attributes, making ready for the new year, near at hand, for its fresher victories.

We often think that the men of medicine are too much enwrapt with the practical and routine business of their lives to stop and reflect over these ideals, more theirs than of most men, and so our digression from the beaten editorial path is excused.

Our Christmas this year may not be merry, it may not be joyous. We have in these United States suffered at the hands of circumstances which have been formed under the changing tides of government and of the times, but still this Christmas will mark the end of such a year.

We must believe that in the sunshine behind the clouds which are going and have gone by, there are merry Christmases ahead, and in anticipating these, we wish the pleasantest of their shadows coming on before for each of you, our readers, and with all our heart.

OUR HYPERSENSITIVE GALVESTON FRIENDS.

A recent edition of a Galveston evening paper contained an "open letter" addressed to the JOURNAL by Drs. C. H. Wilkinson and J. E. Burk.

It seems that the same paper, two days before, published a comment on an editorial in our November number headed "Yellow Fever or Dengue?" claiming that it was an affront to the medical profession of Texas, especially of Galveston and Houston, because we said "if the profession of many parts of Alabama, Mississippi and Texas have been sincere," etc. Why that should bring forth the open letter, at least in their opinion, is stated by Drs. Wilkinson and Burk as follows:

"In view of the fact that your remarks have been published in a newspaper of considerable circulation, and in view of the further fact that a newspaper extra was issued in your city claiming that the last case with which we were connected was a genuine case of yellow fever, we have concluded it is our right to make our statement as public as your criticism has become."

We say in their opinion advisedly, for the reason is not so apparent to us. If a Galveston newspaper chose to publish *one* sentence of our editorial and tried to work it up into an affront to the medical profession; and if a New Orleans newspaper issued an extra (which, by the way, we never saw), "claiming that the last case with which we (they) were connected was a genuine case of yellow fever," would seem to us more reason for them to find fault either with the Galveston newspaper or the New Orleans newspaper, or both.

Besides, our article was in no sense a "criticism." We pointed out the remarkable connection that seems to have existed between yellow fever and dengue in three Southern States lately, and called attention to the obvious necessity for a serious and scientific study of the differential diagnosis between the two diseases, and of their possible relationship. We accused no one. We did not mention Galveston, nor did we refer to any case in that city. Our confrères must have had in mind a medical publication nearer home when they included in their letter a long account of a suspicious case occurring at the John Sealy Hospital.

If they wished to discuss the medical and pathological aspect of the case, our columns were open to them.

Drs. Wilkinson and Burk are both too useful members of the profession for us not to hope that the patient at the John Sealy was not "the last case" with which they were connected.

THE BERLIN LEPROSY CONFERENCE AND THE NEW YORK BOARD OF HEALTH.

The crystallized idea of an assemblage of leprosy experts has been fully executed. The remotest desire in the matter has been realized, and the object has been in every way fulfilled.

The men who for a quarter of a century have been educating the world in this disease met and discussed every vital issue in leprosy. With Virchow as its president, an International Leprosy Society has been conceived. This body of men have shouldered the burden of spreading the results of the conference throughout the world.

The conference has almost unanimously placed leprosy as a bacillary contagious disease, in which heredity bears no part and

slight influence, in which treatment has as yet been futile, and which has increased steadily, even rapidly in places, all over the world. It is acknowledged a preventable disease, and by isolation alone.

The Norwegian system of segregation, which in fifteen years has reduced those afflicted with the disease in that country from thousands to a few hundreds, has been recommended to all governments. This is the work of a hundred and fifty men from all over the world, and they lay it before the medical profession, before the legislative bodies, before the people themselves, for their consideration.

While these men who know leprosy were hard at work striving to educate the world into a knowledge of the undiminished horrors of this disease, the State Board of Health of New York, guided by uninformed and inexperienced medical men of reputed standing, have perpetrated an injustice, or, to tell the truth, a criminal miscarriage of justice upon the people of the city of New York. When 150 men from leprous centres, educated by their experience and observation, declared in Berlin, just about a month ago, that leprosy was contagious and isolation alone could prevent its spread, it seems the essence of stultified obstinacy to refuse to accept this as a dictum. History and observation have declared that leprosy spreads wherever it is introduced, independent of climate and independent of race. It is all very well for provincial New York physicians to be dogmatic in declaring leprosy non-contagious; but theirs is not the risk. In 1844 Hawaii had two lepers; in 1865, so many that protective legislation was necessary. Even with this legislation it required twenty years (1885) to stop the increase in the disease. In Louisiana and in California, the former with hundreds, the latter with dozens of lepers, the medical profession has already begun to try to check the disease by legislation directed at effective isolation. It was ignorant and indifferent apathy which allowed leprosy in Europe to swell into the tens of thousands from the eighth to the twelfth century. This same indifference in Louisiana has spread the disease slowly and insidiously, so that the number of the afflicted can only be surmised. With flagrant and wilful cultivation of the disease by licensing all kinds of intercourse through raising the legal restrictions, the members

of the New York State Board of Health have assumed a responsibility, which they have no right to declare, and for which another generation will curse them, if the present generation does not force them to repeal it.

Medical News Items.

THE OUTBREAK OF YELLOW FEVER IN NEW ORLEANS, as elsewhere, is over. We have three additional cases to report among the medical profession here: Drs. A. C. King, A. R. Choppin and E. B. Viers, making a total of over a dozen. A death must, at the same time, be reported, that of Dr. E. B. Viers, making a total of two for the whole period. About the same number of trained nurses, as of physicians, were stricken with the disease, but without fatality. The two physicians who succumbed to the disease were young men, unacclimated, and who had lived in New Orleans only a short time.

THE TRI-STATE MEDICAL ASSOCIATION OF MISSISSIPPI, ARKANSAS AND TENNESSEE have postponed their meeting until December 15 and 16, owing to the quarantines which were enforced against Memphis during November. This being on the eve of the Christmas holidays, both pleasure and profit may be derived from a trip to Memphis.

NEARLY all of the doctors are back and in harness. Among the latest arrivals are Dr. A. W. de Roaldes, Dr. H. D. Bruns, Dr. W. Scheppegegrell, Dr. O. Joachim and Dr. Isadore Dyer.

DR. OLLIPHANT has returned, satisfied with the result of the visit of the special committee of the American Public Health Association to Washington to interview President McKinley. The committee originally consisted of seven members, and six of these were present, Dr. Swearingen, of Texas, being the only absentee, being represented, however, by Dr. Olliphant. The others present were Dr. Sternberg, Surgeon General U. S. A.; Dr. Durgin, president Board of Health, Boston; Dr. Doty,

quarantine officer, New York; Dr. Horlbeck, health officer, Charleston; Mr. Hazard, sanitary engineer, Canton, Ohio.

The members of the committee were very courteously received by President McKinley, who appeared, in a general way, to be warmly interested in the project of sending a commission to Havana to pursue scientific investigations and experiments looking to the discovery and study of the yellow fever germ. He was not expected to make any promises, but upon the whole the members of the delegation were encouraged as to the probable result of the interview.

DR. W. F. HYER, for many years president of the Mississippi State Board of Health, one of the most prominent physicians in his State and universally popular, died in Meridian on November 18, 1897, in his sixtieth year.

The Medical Council, of Philadelphia, Dr. J. J. Taylor, editor and publisher, has removed its offices to pleasant and convenient quarters at the corner of Twelfth and Walnut streets.

DRS. EUG. WASDIN and H. D. GEDDINGS were detailed by the Marine Hospital Service to study the bacteriology of yellow fever. They spent some time in New Orleans, being afforded necessary facilities by Dr. P. E. Archinard, bacteriologist to the State Board of Health. They left recently for Washington, well pleased with the opportunities obtained here. They have both been detailed by the President of the United States for special duty at Havana to continue their investigations, no doubt at the suggestion of Surgeon General Wyman, of the M. H. S.

The ANTIKAMNIA POCKET CASE, recently distributed among the medical profession, is one of the neatest and most convenient, as well as unique advertisements we have seen.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION met for the tenth annual session in St. Louis, on November 9, 10 and 11. The meeting was as interesting as usual and well attended. There were over forty papers on the program, a number of which were quite important. There was a notable

absence of New Orleans physicians, but for evident reasons. Four of our confrères, however, were down for papers.

THE TULANE MEDICAL DEPARTMENT opened on November 15, later than customary, owing to quarantine regulations against New Orleans. The regular lectures began on November 29, and as we go to press we are pleased to note that the number of students already at work is an assurance that the amount of harm done to our institutions was overestimated. A good year is anticipated, notwithstanding the disadvantages.

THE NEW ORLEANS POLYCLINIC opens January 17, to continue three consecutive terms of six weeks each.

DR. H. B. GESSNER has been elected house physician of the New Orleans Sanitarium, vice Dr. S. P. Delaup, resigned.

DR. R. R. JONES, secretary of the Morehouse Medical Society, and a valued subscriber, died recently and the society passed appropriate resolutions.

Abstracts, Extracts and Miscellany

Department of General Surgery.

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

INTERSCAPULO-THORACIC AMPUTATION IN A CHILD ONLY FIFTEEN MONTHS OF AGE, WITH RECOVERY.—This case is reported by Alexandre Posadas, of Buenos Ayres, in the October number of the *Revue de Chirurgie*. It is doubly interesting on account of the age of the child, only fifteen months at time of operation, and the absence of recurring disease at the end of seven months. Posadas knows of only one case anything like as young, the case of a child two years of age, who died shortly after the operation.

The case of Posadas was that of Amélie Ch., aged fifteen months, admitted into the children's ward in the Hospital de Clénicas on June 12, 1896, suffering from an enormous tumor of the left shoulder and arm, measuring thirty-seven cm. in its most voluminous part, and having a length of twenty-two cm. The tumor was a round-celled sarcoma.

The tumor was removed with the whole arm, scapula and part of clavicle.

The child was well eight months afterward.

A NEW METHOD FOR RADICAL CURE OF INGUINAL HERNIA.—George R. Fowler, of Brooklyn, in the *Annals of Surgery* for November, discusses the radical treatment of inguinal hernia, and describes his method of cure by intra-peritoneal transplacement of the spermatic cord and typical obliteration of the internal ring and inguinal canal.

This method is practically the same as that described by Jonnesco in a recent number of the *Centralblatt für Chirurgie*, although Fowler does not refer to Jonnesco. In this method, as described by both Fowler and Jonnesco, the peritoneum is incised from the site of the internal ring as far down as convenient, the cord dropped into the cavity, and the peritoneum closed over it well down to the pubic bone, close to which it is brought out of the abdomen. The other layers of the wound are then brought together and united so as to make a new external ring. The method permits of the complete closure of the canal, and excepting that short space traversed by the cord from the peritoneum outward, there is no chance of the formation of a new hernia. This space, as further pointed out by Jonnesco, is with extreme rarity the site of a hernia, owing to its situation and anatomic relations. The ideal, that is, complete, closure of the old canal, insures against recurrence in the situation of the previous hernia, as far as close suture of the abdominal wall can, but we see after other laparotomies, however careful the closure may have been, ventral hernia occasionally showing itself. No operation, therefore, can be said to be absolutely radical, since no procedure insures against failure in particular cases. Furthermore, the operation of Fowler is as yet not sufficiently long on trial to enable us to speak positively of its actual demonstrated advantages over the

procedures of Bassini, Halstead, Kocher and Macewen. All we can assert of this operation is that by this plan, using the words of Fowler himself "the obliteration of the internal ring and inguinal canal is possible without resorting to castration, the most efficient of the formerly practised methods of radical cure of inguinal hernia." The best we can ever expect to accomplish, of course, in the treatment of hernia is to make the closure as permanent and safe as after any abdominal section. If this operation now proposed shall be found to have eliminated completely the cord as a disturbing factor in the cure and nothing objectionable so far as damage to the function of the cord itself is hereafter demonstrated, then the procedure will take its place in surgery and will have to be adopted by surgeons, provided only that some other simple plan shall not be shown to be equally effective. The operations of Bassini, Halstead and others have given such excellent results that surgeons will, doubtless, be loath to adopt this Fowler method as a routine procedure and will reserve it for specially difficult cases, that on their face do not promise well with other methods. However, the procedure of Fowler bears the marks of sound common sense, and we have no doubt the advantages and disadvantages of the method will not be long in being worked out by surgeons.

We shall, likely, in some future number of the JOURNAL, return to this subject, as there is in our opinion no more profitable discussion than that of the many phases in the evolution of the method for the radical cure of hernia—but our space bids us go no further now.

Department of General Medicine.

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

PROLONGED INCUBATION OF HYDROPHOBIA IN MAN.—Dr. Feltz, physician to the hospital at Saint Denis, near Paris, and Dr. Raymond Archambaud, ex-interne at the same hospital, report the following case in the *Gaz. Hebd. de Méd. et de Chir.*:

“On Friday, July 16,” writes Dr. Archambaud, “I was called at 11 P. M. to attend a young man, about 20 years old. He had always enjoyed good health; had never been ill. There was no hysteria in his family. His parents were healthy. On the two preceding days the patient had enjoyed himself and fatigued himself excessively, spending the night drinking, dancing, singing, and was cheerful as usual.

“In the morning, though exhausted, he had left for work, but was soon taken with a chill and a difficulty in breathing, so he was compelled to come back home. The day was passed well enough, but toward evening he felt worse, the difficulty of respiration being aggravated.

“I found the patient in bed, in the sitting posture, unable to lie down. He complained of slight pains in the left side; his respiration was hardly accelerated, but at times a deeper inspiration would take place. His pulse was 60, and his temperature normal. Auscultation revealed nothing abnormal.

“At 4 A. M. I was called again. Temperature normal, pulse 60, but the respiratory difficulty had increased and severe pains were then complained of.

“He said it was as if an enormous weight were crushing his chest. He also felt as if his throat was grasped and closed, yet his throat was normal. Pains radiating from the sternal region reached his left arm, and his whole left hand would become numb and powerless for several minutes. I again auscultated and merely noticed the same slow though more impulsive heart beats. I injected morphin and prescribed a quieting potion. The patient was rapidly relieved and I left.

“The paroxysms returned, however, a few hours later, and his parents, not finding me called upon Dr. Feltz, who made the following observation at 10 A. M.: Slow pulse, temperature normal, respiratory and circulatory apparatus normal. The patient stated he could not actually swallow a sip of water, and upon Dr. Feltz’ insisting, he tried again and never succeeded. Chloral hydrate per rectum was ordered. It occurred to Dr. Feltz that the patient might be suffering from hydrophobia, but he could not arrive at a positive opinion at the time. He feared that any question regarding hydrophobia might alarm the patient and looked in vain for a chance to safely interview the parents.

“I called a little later and found that a great change had

taken place since my last visit ; the patient's face was pale, his eyes were sunken ; there occurred every three or four minutes paroxysms of intense dyspnea. The patient, with a start, would take a deep tetanic-like inspiration and leap from his bed, to become quiet again, almost instantly. Pharyngeal spasms also occurred as soon as he took to his lips a cup of water or milk, in which he was compelled to immerse his finger conveying it to his throat to refresh himself ; for all that the paroxysms returned infallibly after two or three deglutitions. Yet, full of will and courage, he succeeded in swallowing some of the liquid, upon my entreaty, by a sudden and deep thrust of the spoonful into his mouth. This caused such agony that he preferred to suffer from thirst rather than attempt quenching it.

“During the short intervals of respite he spoke quietly, though in a faltering voice and told us of his anguish. He begged us not to move about, not to open the doors, the least draught of air affected him and brought on paroxysms.

“All in a perspiration, he uncovered himself, but he soon felt chilly and had to cover himself again. At 4 P. M. he complained of such pains over the heart and about the arm that I auscultated again. The heart-beat had somewhat increased in frequency and in pulse, and I detected a slight friction-murmur at the apex. At 6 P. M. he was suddenly taken with wild delirium and frenzy, rushing headlong, striking with his left and right arms, kicking with both legs in all directions, then he sank on his bed, unconscious. A sanguineous froth oozed from his mouth, his respiration and pulse were accelerated, his pupils dilated, his face and body became cyanosed, and he died shortly after.

“Dr. Feltz, who had been called to verify the death of the unfortunate young man, questioned his parents as to hydrophobia. We learned that six and a half months previously, somewhere about December 31, 1896, a dog had licked their son's mouth with its tongue. It was acknowledged that the dog had hydrophobia, for, shortly after, he bit a child, who was treated for and discharged cured of hydrophobia at the Pasteur Institute of Paris.

“The crisis had come on without prodromata ; its sudden production was probably due to his excesses on the preceding days ; its duration was thirty-six hours. This case is interesting from many points of view :

“1. The difficulty of diagnosis. It is only after death that the parents of the patient remembered the mad dog, and they did so upon Dr. Feltz’ insisting, so little had they been impressed with fear from the dog’s action regarding their son.

“2. The way in which inoculation was produced. Was there any slight abrasion on the young man’s lips? This remained unknown. At any rate, the sad occurrence demonstrates only too plainly the danger from the most superficial inoculations, particularly as regards the mucous membranes. The latter can normally, according to Galtier’s experiments (*Soc. de Biologie*, 1890), absorb the virus.

“3. The trite opinion is confirmed once more, that the potential energy of such inoculations is roused and their manifestations hastened by any material loss of organic resistance, brought on by excesses, *in venere, vino, et ceteris*, vigils and emotions. In this case, the excesses appear to have been the actual cause determining the manifestations of the old inoculation. It is a question whether it would ever have exhibited its usual dreadful effects after such a long period had it not been for these two days of festive wear and tear. The case confirms the contraindication to any surgical interference in subjects suspected of having been inoculated. The usual shock from operations arouse manifestations which otherwise might not have occurred, or, in case they did, might be more easily mastered. These apprehensive views were suggested of late by the recurrence of rabietic accidents, after a surgical operation, in a subject who had been treated at the Pasteur Institute for hydrophobia.

“4. Finally, the length of incubation is remarkable, the more so that inoculation took place in the region of the face, where the incubation is usually of the shortest duration, the virus being transmitted to the system very rapidly.”

Department of Therapeutics.

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

HYDRASTIS CANADENSIS IN THE TREATMENT OF BRONCHIAL CATTARRH.—Dr. M. Saenger, of Magdeburg, recommends the use of the fluid extract of hydrastis canadensis in the treatment of

the aforementioned condition. To adults he gives twenty to thirty drops, in sweetened water, four times daily. In case it does not produce the expected effects, larger doses may be used. He has never observed dangerous or unpleasant effects from the doses of the fluid extract mentioned, but he remarks that very large doses may give rise to angina pectoris in the subjects of heart disease and in very debilitated persons.—*New York Medical Journal*.

THE TREATMENT OF TUBERCULOSIS WITH CINNAMIC ACID.—Dr. T. Heusser, Davos-Platz, writing in the *Therapeutic Monatshefte*, reports twelve cases improved by this treatment. In seven cases the improvement has been permanent. The injection is made into the gluteal muscles, after the locality has been thoroughly disinfected with absolute alcohol; an ordinary Overlach syringe with a thick canula is employed. The needle, previously cleansed with absolute alcohol and one-half per cent. carbolic solution, is pushed completely into the muscle and the contents of the syringe there injected; if the liquid is injected into the subdermal tissue a burning pain is experienced, while the injection into the muscle is quite painless. The puncture is preferably closed with Haussmann's adhesive.

“The simplicity of the treatment is such as should insure its prompt adoption. The development of the cure is much slower than with intravenous injections, but the final result appears to be the same, of which I have been enabled to convince myself by comparison with preparations from patients treated with intravenous injections by Professor Landerer. As regards dosage, I generally commence with the injection of $1\frac{1}{2}$ minims of the 5 per cent. emulsion, and increase gradually each injection, which I make every second day, unless the patient exhibits any peculiar sensitiveness, which may render a more gradual increase advisable. The maximum dose is 15 grains, and at this I remain until the end of the treatment, which is continued for a month after disappearance of all symptoms. Generally the gluteal injections require to be continued for five or six months, unless in exceptionally severe cases. At the conclusion of the treatment the patients should remain under medical supervision, the sputum especially being examined from time to time. In the

event of the appearance of symptoms indicating a relapse, the treatment must naturally be continued for a time. Immediate effects from the injection do not present themselves, or a burning sensation is felt at the puncture, which at most lasts from morning until evening. The patient also generally feels depressed and complains of being tired; in rare cases I have observed congestion of the head, and once an attack of dizziness. Nearly all the patients become irritable and nervous. After two to four weeks an improvement of the general condition and feelings is accompanied by an increase of appetite and body-weight. The cough is soon ameliorated and temperature reduced. Both physician and patient must, however, remember that the cinnamic acid treatment, especially by gluteal injection, requires great patience until results are seen, and those who do not make up their minds from the first to carry the treatment through should abstain.

“ In conclusion I would say that my experience is quite in accord with Landerer’s, who used intravenous injections, and I am of opinion that: (1) Cinnamic acid is a drug having great influence on tuberculosis; (2) the gluteal cinnamic acid injections, if cautiously made, are absolutely innocuous; (3) it is capable of curing a considerable number of cases of pulmonary tuberculosis.”—*The Therapist*.

THE TREATMENT OF EPILEPSY.—The writer commences treatment by administering a saline purge, followed by a course of naphthol to insure intestinal antiseptis. Then follow the suggestion of Flechsig to give the extract of opium for six weeks, commencing with a quarter grain rapidly increasing to five grains, three times daily; then the drug is stopped and thirty grains of potassium bromide or forty grains of the corresponding sodium salt, three times a day, are substituted; continue this treatment for thirty or forty days, then gradually diminish the dose until thirty grains per day are taken. A diet which chiefly consists of vegetables should be insisted upon. This form of treatment has given good results in a considerable number of cases.

THE USE OF CONVALLAMARIN IN CHLOROFORM NARCOSIS.—Lewenberg has carried out a series of experiments with dogs in

which he has given full doses of convallamarin for the purpose of combating the arrest of circulation and respiration caused by the chloroform, with the result that he believes this remedy is of value in preventing or remedying this accident.—*The Therapeutic Gazette*.

AN INTESTINAL ANTISEPTIC MIXTURE.—According to the *Indépendance Médicale* the following formula is advised by de Maximovitch :

℞ Naphthol	45 grains.
Chloroform	15 drops.
Castor oil	1,500 grains.
Essence of peppermint	5 drops.

M. Dose, a tablespoonful (for children, a teaspoonful) in port wine, beer, or hot and sweetened black coffee.

—*New York Medical Journal*.

EUPHTHALMIN, A NEW MYDRIATIC.—D. B. Trentler has investigated the action of euphthalmin in the Marburg University Eye Clinic under the direction of Professor C. Hess. The new preparation is the hydrochloric acid salt of mandelic derivative of methyl-imyl-diocton-alkamin. It is closely related to the new anesthetic eucaïn, bearing the same relation to it chemically as does homatropin to tropa-cocain.

Careful comparative experiments with the new mydriatic have enabled Dr. Trentler to publish the following conclusions :

1. The instillation of euphthalmin solutions into the eye causes only very slight and temporary inconvenience.

2. Euphthalmin is a powerful mydriatic; a 5 to 10 per cent. solution produces the maximum extension of the pupil in about the same time as 1 per cent. homatropin solution.

3. The mydriatic action is less intense and prompt with adults than with young people.

4. As a mydriatic, euphthalmin has the advantage over cocain, that it is more powerful in action, and does not damage the corneal epithelium. On the other hand, mydriasis is slower in development.

5. Euphthalmin affects the accommodation less than does homatropin.

6. The disappearance both of mydriasis and of the paresis of the accommodation takes place much more quickly than after employment of homatropin.

7. No unpleasant effects upon the organism have hitherto been observed.

The new preparation has, therefore, several important advantages over other mydriatics of brief activity, so that it invites extended employment in ophthalmological practice.—*Klin. Monatsblätter für Augenheilkunde.*

EUPHTHALMIN MYDRIASIS.—In a recent sitting of the Giessen Medical Society, Dr. Vossins reported that a 2 per cent. solution of euphtalmin had been successfully employed for production of mydriasis. Two or three drops of the colorless solution in the eye produces a medium degree of mydriasis within twenty to thirty minutes, and disappears entirely in two or three hours. No pain or other unpleasant effect follows the instillation, and the accommodation is unaffected. Euphtalmin is specially suited for ophthalmoscopic investigations in consequence of the effect upon the pupils and the absence of the disturbance of the accommodation.—*The Therapist.*

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.

Lectures on the Action of Medicines, course of lectures on Pharmacology and Therapeutics, delivered at St. Bartholomew's Hospital. By T. LAUDER BRUNTON, M. D., D. Sc. (Edin.), L.L. D. (Hon. Aberd.), F. R. S. New York: The Macmillan Company, 1897.

The book is dedicated to Sir Trevor Lawrence, Bart. Dr. Brunton needs no introduction to the profession. His several works and numerous articles on therapeutics and pharmacology have long since caused him to be a recognized authority on the

subjects treated. The author's style is most interesting. He well says, "A rational system of medicine depends first of all upon a knowledge of the disease, or pathology. Secondly, upon a knowledge of the action of the remedies that are to be employed in the disease, or pharmacology; and the knowledge of those two subjects depends upon a knowledge of the healthy structure of the body, or physiology, and physiology in its turn depends upon chemistry and physics." It is of prime importance that all physicians have an exact knowledge of the action of medicines, and the physician possessing such knowledge will always have a great advantage over the less fortunate brother who has neglected this vastly important branch of his profession. The action of individual drugs and measures are well explained; numerous examples along with diagrams and illustrations are given, making the work the most lucid exposition of the subject we are acquainted with. The work deserves the careful study of every thoughtful physician, as we feel sure the information derived therefrom will prove of inestimable value at the bedside.

STORCK.

Surgical Hints. BY HOWARD LILIENTHAL, M. D. International Journal of Surgery Company, 1897.

This is a little pamphlet of thirty pages, consisting in a compilation of surgical hints, which, though not pretending to be anything like complete, yet contains much that may prove useful to the surgeon and general practitioner.

PARHAM.

Appendicitis and its Surgical Treatment. BY HERMAN MYNTER M. D. Philadelphia: J. B. Lippincott Company, 1897.

This is a systematic monograph of 295 pages, on appendicitis, giving a historical introduction, a discussion of the anatomy, histology and functions of the appendix and the etiology, pathology, classification, symptomatology, complications and sequelæ, diagnosis, prognosis, treatment and statistics of appendicitis. The work has been admirably done, is extremely readable, and gives an excellent presentation of the subject in all its phases. The literature of the subject has evidently been well gone over, and the author presents his personal experience in a report of seventy-five cases operated upon. These cases

are reported in detail and add much to the value of the work. While this work may not be as elaborate as that of Fowler, it is nevertheless a welcome addition to our surgical monographs and can be heartily recommended to those who desire to get a very adequate knowledge of the subject.

PARHAM.

Notes on the Special Hygiene (Physical and Mental) of Childhood and Youth. BY THOMAS MORE MADDEN, M. D., F. R. C. F. E.

In this little brochure, comprising sixty-eight pages, the author, in a concise style, very clearly and forcibly sets forth his views on these important subjects. The book will compensate a thoughtful perusal.

STORCK.

The Diseases of the Male Urethra. By R. W. STEWART, M. D., M. R. C. S. One volume of 229 pages, post-octavo; illustrated by numerous wood engravings. William Wood & Co., New York, 1896.

It is our candid opinion that probably no one, be he specialist or general practitioner, can read Dr. Stewart's book without interest and benefit. The experienced specialist might not find anything specially new, yet many facts he has observed would appear in a new and truer light after the perusal; the general practitioner would learn many things he has not been taught either at college or in other works on the subject.

The etiology and pathology, with as much of the anatomy as is necessary to a thorough understanding of both, have been particularly well described. The treatment, necessarily in a work of only 220 pages, is not complete in its details; notably so in the chapter on strictures. Dr. Stewart summarily disposes of electrolysis by saying that, as a means of treating stricture, it has been tried and found wanting. As he refers only to Dr. Newman's method, we may believe that he does not know of Dr. Fort's method and be allowed to hope that he might modify his opinion did he study that method.

Evidently the author's enthusiasm is directed chiefly against the idea of a relation between the diameter of the penis and the calibre of the urethra; against the notion that strictures of large calibre produce serious evil results; and against indiscriminate urethrotomy. We believe his plea is in the main correct, yet

find that he is unnecessarily severe on Dr. Otis, who has accomplished so much for genito-urinary surgery.

The book is solidly and attractively bound, the print clear, and it contains between fifty and sixty wood engravings, which aid in understanding the text. C. C.

Clinical Lessons on Nervous Diseases. By S. WEIR MITCHELL, M. D., LL. D., Edin. Lea Brothers & Co., publishers, Philadelphia and New York, 1897.

This work, as everything that comes from the pen of Dr. Weir Mitchell, is highly interesting and practical. The cases chosen to elucidate and illustrate the text are always well selected. Especially attractive is the chapter on Erythromelalgia, a name given in 1878 to vaso-motor paralysis of the extremities by the author. The clinical lessons on Nervous Disease will find a welcome in every physician's library. P. E. A.

Twentieth Century Practice. An international encyclopedia of modern medical science. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volumes X and XI "Diseases of the Nervous System." William Wood & Co., New York, 1897.

The above two volumes of the Twentieth Century Practice are among the best published so far. In the limited space at our command it is impossible to do justice to the authors of the various articles, all of which, without exception, are thorough and practical. Volume X treats of general nervous diseases and diseases of the brain. We have been especially interested in the articles on Cerebral Localization, by Collins; Tumors of the Brain, by Sachs; Hysteria, by Feré; the Disorders of Speech, by Pershing. The contributors to this volume are: Sawyer Brown, Chicago; Joseph Collins, New York; Charles A. Dana, New York; Charles Samson Feré, Paris; Howell T. Pershing, Denver; Bernard Sachs, New York. Volume XI treats of diseases of the peripheral nervous system, including the spinal cords, the sympathetic and the cranial nerves. In this volume we have been chiefly pleased with Lloyd's article on Multiple Neuritis, and Möbius' article on Tabes Dorsalis. The con-

tributors to volume XI are: L. Bruns, Hanover; J. X. Dercum, Philadelphia; James Hendric Lloyd, Philadelphia; C. K. Mills, Philadelphia; Paul J. Möbius, Leipsic; Adolf von Stumple, Erlanger, Bavaria; F. Windsheid, Leipsic; Lightner Witner, Philadelphia. P. E. A.

Genito-Urinary Surgery and Venereal Diseases. By J. WILLIAM WHITE, M. D., and EDWARD MARTIN, M. D. J. P. Lippincott Co., Philadelphia and London, 1897.

This work of over a thousand pages is destined to be useful chiefly to students. It is mainly a compilation of the generally accepted views on especially the symptoms, diagnosis and treatment of genito-urinary affections, venereal diseases and syphilis. Pathology is touched upon and the opinion of the experienced authors is given when different methods are compared, adding no small value to the book. Syphilis takes up nearly one-fourth of the volume and is comprehensively treated.

There are twenty-nine chapters, the latter of which is devoted to psychopathia sexualis, and might have been omitted, as it is only a *resumé* of a dozen pages from Krafft-Ebing and Schrenck-Notzing.

The illustrations are numerous, the paper, type and binding first class. All in all the volume is creditable, and makes a good text-book and work of reference. C. C.

The Medical News Visiting List for 1898. Lea Brothers & Co., Philadelphia and New York.

A visiting list is an indispensable convenience for the active practitioner. This one is issued in four styles, adapted to any system of records and of keeping professional accounts. It is durably and handsomely bound in the size of a wallet for the pocket. It contains useful tables and costs, in seal grain leather, \$1.25.

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Text-Book of Practice of Medicine, by Jas. M. Anders, M. D.—W. B. Saunders, Philadelphia, 1897.

Constipation in Adults and Children, by H. Illoyay, M. D.—The MacMillan Company, New York, 1897.

Pathological Technique, by Frank B. Mallory, M. D.—W. B. Saunders, Philadelphia, 1897.

Practical Diagnosis, by Hobart A. Hare, M. D.—Lea Bros. & Co., Philadelphia and New York, 1897.

Twentieth Century Practice, Vol. XII, edited by Thomas L. Stedman, M. D.—Wm. Wood & Co., New York, 1897.

Traumatic Injuries of the Brain, by Chas. Phelps, M. D.—D. Appleton & Co., New York, 1897.

Cutaneous Medicine, Part II, by Louis A. Duhring, M. D.—J. B. Lippincott Company, Philadelphia, 1897.

An Epitome of the History of Medicine, by Roswell Park, M. D.—F. A. Davis Company, Philadelphia, New York and Chicago, 1897.

Essentials of Bacteriology, by M. V. Ball, M. D.—W. B. Saunders, Philadelphia, 1897.

Medical Education and Registration, by W. T. Slayton, M. D.—Lamoille Publishing Company, Hyde Park, Vt., 1897.

Transactions of the American Surgical Association, Vol. XV, 1897.

Spinal Caries, by Noble Smith, F. R. C. S., Ed., etc.—Smith, Elder & Co., London, 1897.

A Manual of Clinical Diagnosis, by Chas. E. Simon, M. D.—Lea Bros. & Co., Philadelphia and New York, 1897.

About Children, by Samuel W. Kelley, M. D.—The Medical Gazette Publishing Company, Cleveland, 1897.

Medical Jurisprudence, by Alfred S. Taylor, M. D., edited by Clark Bell, LL. D.—Lea Bros. & Co., Philadelphia and New York, 1897.

International Clinics, Vol. III, Seventh Series.—J. B. Lippincott Company, Philadelphia, 1897.

Diseases of Women, by Hy. J. Garrigues, M. D.—W. B. Saunders, Philadelphia, 1897.

Principles of Bacteriology, by A. C. Abbott, M. D.—Lea Bros. & Co., Philadelphia and New York, 1897.

Manual of Gynecology, by Hy. T. Byford, M. D.—P. Blakiston, Son & Co., Philadelphia, 1897.

Materia Medica, Pharmacy and Therapeutics, by Sam. O. L. Potter, M. D.—P. Blakiston, Son & Co., Philadelphia, 1897.

Clinical Methods, by Robt. Hutchison, M. D., and Harry Rainy, M. D.—Lea Bros. & Co., Philadelphia, 1897.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.
FOR OCTOBER, 1897.

CAUSE.	White	Colored	Total
Fever, Malarial (unclassified)	1	3	4
“ “ Intermittent	1		1
“ “ Remittent	1	1	2
“ “ Congestive	7		7
“ “ Typho	153	5	158
“ Yellow	8	3	11
“ Typhoid or Enteric.....			
“ Puerperal			
Influenza.....			
Measles			
Diphtheria	3		3
Whooping Cough	1		1
Apoplexy	14	5	19
Congestion of Brain.....	6	2	8
Meningitis	4	2	6
Pneumonia.....	10	7	17
Bronchitis	6	3	9
Cancer.....	12	2	14
Consumption.....	28	30	58
Bright's Disease (Nephritis)	19	14	33
Uremia	1	2	3
Diarrhea (Enteritis)	11	3	14
Gastro-Enteritis	3	1	4
Dysentery.....	4	1	5
Hepatitis	5		5
Hepatic Cirrhosis	6	3	9
Peritonitis.....	3	1	4
Debility, General	2	1	3
“ Senile	14	6	20
“ Infantile	5	5	10
Heart, Diseases of	16	23	39
Tetanus, Idiopathic			
“ Traumatic	4	6	10
Trismus Nascentium.....	6	12	18
Injuries	10	8	18
Suicide	2		2
All Other Causes	85	50	135
TOTAL	451	199	650

Still-born Children—White, 23; colored, 20; total, 43.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 27.75; colored, 29.85; total, 28.36.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.05
Mean temperature	74.00
Total precipitation.....	1.52 inches
Prevailing direction of wind, northeast.	

January, 1898.

*Paullum sepultæ distat inertæ
Celatæ virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

EDITORS:

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ISADORE DYER, M. D.

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163 University Place

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JANUARY, 1898.

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(Established in 1844.)

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ISADORE DYER, M. D.

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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. L.

JANUARY, 1898.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

A NATIONAL HEALTH ORGANIZATION AND OTHER SANITARY NEEDS.*

BY STANFORD E. CHAILLÉ, M. D., PROFESSOR OF HYGIENE, AND DEAN,
MEDICAL DEPARTMENT, TULANE UNIVERSITY, NEW ORLEANS.

GENTLEMEN—Your president appointed me to open the discussion on some of several sanitary questions, and I much regret that indisposition and imperative official duties have disabled me from giving these questions the study and consideration merited by their great importance; and if, when I close, you be dissatisfied, you will have developed into my present condition. Satisfactory consideration of all the questions I to V would require not only much sanitary knowledge, but also knowledge of the history of yellow fever—not only knowledge of constitutional law, but also of many special laws.

Striving for your sake for greater brevity, I have written a sketch of my views, and I would have better succeeded had I had more time. As my views have had many opponents, and as I would guard myself from unjust suspicion, I wish it known that my views are those of a citizen interested solely in the common welfare, and that I am unbiased by any selfish motive or ambition. In truth, my experience as a sanitary officer of the Confederacy, of Louisiana, and of the United States, and my vivid

*Read before the Orleans Parish Medical Society, December 11, 1897.

recollection of how Dr. Choppin (president, Louisiana State Board of Health) and Dr. Carrington (quarantine officer at Mississippi river station) were vilified and threatened because of the yellow fever of 1878; of how Drs. Bemiss and Chaillé (of the National Board of Health) were suspected and abused in the early '80s, and of how Dr. Olliphant and the Louisiana Board of Health have been treated in 1897, have resulted in an invincible repugnance to ever taking any risk, as must be done by every sanitary officer, of becoming a target and a scapegoat for the public, whenever disaster, whether avoidable or not, may occur.

Three allied questions were assigned specially to me, with an invitation to include all the others, since all were interdependent. My first question is, "Should we have an independent national health organization devoted specially, not only to supervising, regulating or controlling all seaboard quarantine stations, but also to promoting in every other practicable way the general sanitary welfare of the people of the United States?"

I submit, as essential premises to my conclusions, two elementary lessons in hygiene, long taught every student of the Tulane Medical Department:

The first lesson is that preventable diseases, including therein all communicable or catching diseases, are the most disastrous of all physical foes to life and to happiness. More disastrous than conflagrations, than thieves and robbers, than Indians on the war path, and than any armed foreign or domestic foes. And that, while the public has provided well-disciplined and well-paid organizations to protect them from all these lesser foes, yet the public has failed to provide similarly efficient agents to protect it from its very greatest foe, preventable diseases. Until the public learns to regard and to wage war against these diseases in the same way as is done as to lesser foes, satisfactory progress in vanquishing communicable diseases can not be accomplished. One, of many illustrations of contrasted views and treatment, deserves notice; the public, when either falsely alarmed or defeated, as it often is by other foes, usually endures these misfortunes with magnanimity; but when falsely alarmed or defeated by pestilence, a much more difficult foe to vanquish, deep damnations are visited upon those who struggled against these misfortunes.

The second lesson will be prefaced by a quotation from Chief Justice Taney, of the United States Supreme Court: "Disease, pestilence and pauperism are not things to be regulated and trafficked in, but to be *prevented*, as far as human foresight or human nature can guard against them." Now the second lesson is that, in our republic, there are three, and only three, governmental authorities the people can summon to guard them against their worst public foes, disease and pestilence, and hence that the people of every State imperatively need a local (*i. e.*, a city, town or county) Board of Health, a State Board of Health and a National Health Organization; for only by these governmental agencies can the people prevent disease and pestilence "as far as human foresight can guard against them." A local Board of Health is obviously needed to guard the health of its constituents and to protect every citizen's inalienable right to health from the very frequent insanitary trespasses of one citizen against another. A State Board of Health is as much needed to promote and guard health in all matters involving two or more communities, and in preventing one community from trespassing against another. Finally a National Health Organization is even more needed to protect and promote health in all matters involving the welfare of two or more States, in preventing one State from trespassing on another, and, most obviously of all, in preventing the invasion of every State by foreign pestilence.

Whoever accepts the premises now submitted is forced to favor a national health organization; and to me, objection to securing the aid of the United States in preventing the invasion of disease from abroad, seems fully as unreasonable as would be objection to securing federal aid against an armed foreign invasion. For warfare against disease is even more needed for the common weal than against armed foes from abroad, and in both cases every power and all resources should be united in the struggle for victory. Protection of every State from the invasion of disease from abroad is the manifest duty of the United States, and its government is criminal, in my opinion, if it shifts this gravest responsibility on to States or municipalities. Let these do all they can for self-protection, as in war against other foes than disease, but the responsibility belongs primarily to the general government.

Further, if it be the duty of the United States to protect all States from invasion by foreign pestilence, it is equally its duty, if this foe effects a landing in any State, whereby other States are necessarily endangered, to wage relentless war against this foe in order to prevent it from invading any other State. Still further, other foes, such as consumption, diphtheria, typhoid and scarlet fevers, long ago successfully invaded every one of the United States, have become domesticated therein and incessantly maim and slaughter the people, to far more direful extent than foreign pestilences have ever done; and I hold it to be the duty of the United States to give all possible aid to the States in their warfare against these domesticated foes. Bitter and prolonged must be the struggle against foreign and domestic pestilence, and the greater the resources enlisted, the prompter and the greater will be the victory. However, amazing as it is, there are those who would enlist in this war only the States and municipalities, and would refuse to enlist the nation, though it possesses the highest authority and by far the greatest resources. In the name of common sense and of the common weal, let every resource, local, State, and national, be welcomed to this contest, inasmuch as the union of all resources is more needful to wage successful war against disease than against any other foes!

Although united action is most needful, yet human frailty is sure to involve local, State and national boards in conflict, unless the authority of each is defined and restricted. A local board should be supreme in all matters that concern exclusively its own constituents. A State board should be supreme in all matters that concern the health of two or more communities within the State. A national board should be supreme in all sanitary matters involving two or more States and foreign countries. Every one of these boards could find a superabundance of duties and responsibilities if thus restricted, in accord with the spirit of our laws.

The United States should establish quarantines wherever needed to protect every State from foreign invasion; and the minimum protection to be given by every national quarantine should be at least the maximum now given by any State quarantine. While each quarantine usually serves to protect several States, yet the State in which a quarantine is located is in the earliest and the greatest danger; and I believe not only that a

State should have the right to a supervising inspector at every national quarantine located in the State, to protest against inefficient execution of quarantine regulations and to warn his State, but also that such supervision would promote greater efficiency and greater confidence. For instance, if the United States persists in maintaining its Ship Island quarantine, the Mississippi Board of Health should have the right to assign to duty there its own supervising inspector, whom the United States should welcome and strive to satisfy. In the warfare against disease there should be constant effort to secure the unity of action which is fostered by mutual confidence.

The United States now has sixteen and the States and municipalities twenty-seven seaboard quarantine stations. The chief requisites for efficiency are uniformity of methods, unity of action and ample resources; and however hopeful others may be, I am hopeless of securing the greatest efficiency except through action by the United States. If States and municipalities prefer to maintain their seaboard quarantines for self-protection, then the United States should establish its stations outside of the former, and there discharge the national responsibility to protect all the States.

For such reasons as have been indicated, my conviction is profound that the sanitary progress and welfare of all the people of the United States require an independent national health organization, having no duty except the most onerous one of promoting national sanitation. Such an organization ought to prove even more serviceable to the people than either the Department of Agriculture or the Bureau of Education. The power, long advantageously exercised by the former, to investigate the causes of and the means to prevent the diseases of profitable vegetables and domestic animals, should be conferred on a national health organization, so that men, women and children may secure, to prevent disease, advantages equal to those long enjoyed by wheat, cotton, cattle and hogs. Comparing with the Bureau of Education, I quote one of England's most eminent men: "I do not know whether health or knowledge contributes most to the prosperity of a nation, but no nation can prosper which does not equally promote both; for, either of them without the other has only half the power for good that it should have." All of the most civilized nations

have a national health organization, even Canada and Mexico each have one, and yet we boastful citizens of the United States preferred to destroy the only one we ever had rather than strive to make it satisfactory and contributive to the public welfare.

My second question is, "Should the authority of the Marine Hospital Service be so enlarged as to constitute a national health organization?"

This service was organized and equipped to care for sick sailors, to cure disease rather than to prevent it, and finds appropriate and ample employment ministering annually to 55,000 sick seamen and inspecting 230,000 immigrants. The far more exacting and important duties and responsibilities of promoting the health of 75,000,000 of people ought not to be imposed, as a secondary matter, on a service having any other primary duty. Although its primary duty to hospitals is very satisfactorily discharged, it is not adequately organized or equipped for a national health organization. Its officers have not either special sanitary training, or experience or repute. Very few have either special knowledge or experience in either yellow fever or cholera.

Biloxi and Ocean Springs are the villages nearest to the Ship Island Quarantine Station of the Marine Hospital Service. The evidence is very strong that yellow fever appeared in Biloxi in August, 1886; and first in Ocean Springs in August, 1897. The proximity of both places to Ship Island, where alone was yellow fever known to exist or was liable to exist, constitutes presumptive evidence against its quarantine station so strong that this evidence deserves to be and will be accepted, until decisive proofs are presented of some other origin of the yellow fever at Biloxi in 1886 and at Ocean Springs in 1897.

The head of this service has dictatorial power, with no advisory body or superior officer to check him, except the Secretary of the Treasury, who does not pretend to be a sanitary expert, and therefore, in all sanitary matters, is more apt to encourage than to check his own Surgeon General.

A final and grave objection is that the name of this service fails to indicate the supreme importance of a national health organization and suggests the subordination of this to sailors' hospitals, that is of the greater to the less, thereby tending to

belittle the importance and dignity of the former. A national health organization subordinated to this hospital service would be another ludicrous instance of the "tail wagging the dog."

On the other hand, there has been sent to Congress a bill which originated in the American Medical Association and has been approved by the American Public Health Association, the two professional organizations in the United States that have the largest and most reputable membership and are the most capable, by the special knowledge and experience of their members, of sound judgment in sanitary matters. This bill establishes a department of public health, a commissioner as its chief, and an advisory council composed of the chief executive officer of every State Board of Health. The commissioner of public health is the executive officer and his power is limited to execution of the laws and of such regulations as both the advisory council and the President of the United States may approve. The Marine Hospital Service is made a part of the Department of Public Health.

In my judgment, such a law would be far preferable to a national health organization subordinated to the Marine Hospital Service. However, I prefer a little loaf to no bread, and if Congress, in its (lack of) wisdom, decides to give this service charge of the execution of all national sanitary laws, I shall be hopeful that this service will be gradually so well organized and equipped as a public health service that a dog will be at last developed equal to the emergency of wagging his own tail. In the meantime, if the Marine Hospital Service is to become the National Public Health Service, Congress should be petitioned for its rebaptism, with its present title changed either into the "Public Health Service" or into the "Public Health and Marine Hospital Services."

My last question is, what powers should be added to present national laws? The question, what health and quarantine powers belong to a State and what to the general government, has been long and angrily discussed. On the one hand, it is unquestionable that "police powers" belong to the State, and also that health and quarantine powers are included in "police powers." On the other hand, it is unquestionable, that the power to regulate foreign and interstate commerce belongs to the general government, and farther that the

United States Supreme Court is the final arbiter of what laws are and what are not constitutional. Therefore it seems wiser to base conclusions on the *decisions* of the United States Supreme Court rather than on the *opinions* of others, however numerous and eminent. Hence I submit quotations from two decisions. In the case of *Morgan vs. Louisiana*, gained by Louisiana to its great satisfaction at the time, the United States Supreme Court decided as follows: "Quarantine laws belong to that class of legislation which, whether passed with intent to regulate commerce or not, must be admitted to have that effect, and are valid until displaced or controverted by some legislation of congress." "It may be conceded that whenever Congress shall undertake to provide for commercial cities of the United States a general system of quarantine, or shall confide the execution of the details of such a system to a national board of health, or to local boards, as may be found expedient, all State laws on the subject will be abrogated, at least so far as the two are inconsistent." Further, Judge Fuller, our present Chief Justice and a States-rights Democrat, has decided (*Leisy vs. Hardin*) that "the power [over commerce] vested in Congress is coextensive with the subject on which it acts and can not be stopped at the external boundary of a State, but must enter its interior. Both national quarantine and State quarantine may legally continue to exist, and the supremacy of either upon the subjects within the limits of its control may be maintained without infringement upon constitutional rights."

The sanitarian is safe who bases his conclusions and advice on the premises established by these decisions.

As far as additional quarantine powers are concerned, our United States Senator, Caffery, supported apparently by the very great political influence of the Secretary of the Treasury and of his Surgeon General of the United States Marine Hospital Service, is striving to add to national quarantine and health powers those that follow, I having attempted for brevity's sake to strip the proposed bill of its tedious legal verbiage:

1. Supreme power is given to the United States to prevent the importation of disease from abroad and from one domestic port to another, and thereby absolute responsibility, exclusive of States and municipalities, is imposed on the United States for protecting all the States from invasion by foreign pestilence.

2. Supreme power is given to the United States to prevent the spread of yellow fever, cholera, typhus fever and the plague from one State to another; to fulfil this responsibility the United States is given supreme power, if any of said diseases appear in any State, to prevent its spread *within* said State; and to fulfil this responsibility the United States is given the power to prohibit or to permit the movements of all conveyances of persons and things *within* the State. The execution of the supreme regulations of the United States to prevent the invasion of disease from one to another State are to be executed by the States and municipalities, as long as their execution is satisfactorily efficient to the United States, but no longer.

These proposed additional powers are consistent not only with the views the majority of sanitarians have long strenuously advocated, but also with the decisions of the Supreme Court, and I believe that the progress of public sanitation would be greatly promoted by the conferring of these additional powers on a national health organization.

A national health organization should have powers additional even to those now proposed, for example: to collect and then to distribute, to greater extent than now, useful sanitary knowledge; to investigate the causes of and means to prevent all preventable diseases, and especially communicable diseases, whether domestic or foreign, such as consumption, diphtheria and typhoid fever, as well as yellow fever and cholera; to investigate and promote the best measures: to secure purity of air in cities, mines, etc., to dispose of sewage, to protect and improve our water supplies, to protect our food supplies from adulteration and contamination, to gather statistics of marriages, births and of morbidity, as well as mortality; and to investigate the causes that contribute to race deterioration for the purpose of rectifying this great and, as is to be feared, growing evil.

Solicited to present my views on all the questions propounded I shall conclude with a brief summary of these.

My views as to the questions numbered I and II have been sufficiently indicated in my special consideration of the three questions marked III.

In regard to No. IV every State board should be empowered to enforce and also to release from quarantine localities within the State and to prohibit any quarantine unauthorized by said

board; *provided*, that the United States fails to establish uniform regulations to control inland quarantines—regulations that are to be satisfactorily executed by State boards.

In regard to No. V, the last question, it is submitted that New Orleans needs for the conjoint protection of its health and commerce in 1898 and thereafter many things, and among others the following:

The United States should establish uniform and efficient sea-board quarantines, wherever needed, and especially on the Gulf coast, thereby fulfilling its primary responsibility for the invasion of the United States (Louisiana and New Orleans included) by foreign pestilential foes.

The Ship Island quarantine should be removed to a suitable locality, if to be found, at greater distance from inhabited places; and, if this be not done, then efficient measures should be taken to establish non-intercourse, as absolute as may be practicable, from April 1 to November 1, between said island and inhabited places; and the State of Mississippi should have the right to assign to duty at the quarantine station a supervising inspector to insure such efficient execution as would tend to inspire confidence in the State to which the island belongs. Were there no other cause to remove this station, it is unquestionable that the fear aroused by it gravely injures the summer resorts nearest to Ship Island.

New Orleans needs sanitary officers (national, State or municipal) to give prompt warning of the appearance of yellow fever at any places in the United States, and especially at places on the Mexican Gulf.

For the protection of the health and commerce of New Orleans, Louisiana should have a veritable State Board of Health, with a membership representative of all parts of the State, and provided with authority and means enough to give the State Board the power needful to inspire public respect and confidence. The health officer of such a State Board should be a yellow fever expert and he should have authority to impose quarantine instantly on detecting the presence of the disease, said quarantine to be maintained until disapproved by the board.

New Orleans needs an efficient city board such as New York City has.

Every house wherein fever, whether reported to be yellow

fever or not, has existed, should, with its contents, be thoroughly disinfected, and everything within and about such houses should be freely and repeatedly exposed to air, sunlight and cold. Clothing and bedding that have been packed away especially need prolonged exposure to air, etc.

Above all other things, municipal cleanliness is needed, not only after yellow fever has appeared, but all the year, and especially from April to November. The most powerful governments fail to wholly prevent the smuggling of visible things, so quarantines may be evaded and the invisible poison of yellow fever may gain entrance to the country. This poison grows best in filth, and least, if at all, where there is perfect cleanliness. Our drainage, sewerage and scavenging should be perfected as promptly as possible, if for no other purpose than to give greater security from yellow fever.

The public needs sanitary education as well as sanitary legislation, and to be mindful that eternal vigilance is the price that must be paid for freedom from invasion by disease; that the best laws must fail if inefficiently executed; that efficiency depends on adequate means and the right men to execute; and that the right men are usually more surely found by observance of the maxim: "The office should seek the man, and not the man the office."

The policy as to quarantining houses, in case yellow fever should ever again appear, should be very thoroughly considered and agreed upon.

Finally, if our people will keep ever in mind that "God helps them who help themselves," then the public deserves the encouragement to be gained by the reasonable hope that yellow fever will never again prevail. From 1796 to 1858 there were four serious epidemics in every ten years, and probably not one year without many cases. The epidemic of 1867 came nine years after the preceding one; then came an interval of eleven years to 1878, and then an interval of nineteen years to 1897 and the last was attended with a comparatively insignificant mortality. Manifestly the conditions unfavorable to yellow fever have gradually and vastly improved during the past thirty-nine years.

DENGUE OR YELLOW FEVER ?

BY GEORGE H. LEE, M. D., GALVESTON, TEXAS.

In the November issue of the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* appeared an editorial under the above title, and accepting the query as proposed it is the purpose of this paper to discuss the answer.

The writer is not a yellow fever expert. He belongs to the small minority who feel they still have something to learn upon the question of the diagnosis of this affection.

He has seen in the last few months a large number of cases of that fever which has, according to the best of testimony, prevailed extensively not only in Galveston, but at least all over the State of Texas. He has frequently asked and has been asked the question: "Dengue or yellow fever?" He has sought an answer by searching the best authorities in each direction. His investigations have led him not only into the records of past epidemics, but to a comparison of the clinical histories and the autopsy records of the disease which is prevailing in New Orleans and other places infected with yellow fever, and the clinical histories and autopsies of the type of fever prevalent in this section (Texas).

While he has a profound regard for the experience and attainments of those members of the profession who are properly and deservedly experts, he is not now and does not expect ever to be willing to accept any final judgment but his own in a field where he feels it a duty to be informed and to have an opinion.

The writer has seen during the last two or three months a large number of what he believes were dengue fever cases. He has seen no case of so-called yellow fever, nor any case in Galveston that was considered suspicious, nor any case that he could conscientiously diagnose as yellow fever.

A very large proportion of these cases presented clinical features, which by some authorities are not considered as belonging to the history of dengue. The writer has kept notes on his practice and this paper is for the purpose of submitting these notes for what they are worth in assisting to an answer to the question "Dengue or Yellow Fever?" While he has convictions he is open to light from any quarter and is anxious only for the truth.

Following the suggestions of the editorial, he further proposes to show that while daring to differ with the position of one of the first authorities upon the nature of the fever prevailing in this city, his attitude was founded upon reasons at least sufficient to his own judgment, and has been further strengthened by the development of subsequent events.

From July 29, when the first case from San Antonio was seen, to November 1, the writer has notes on 490 cases of what he considered dengue fever. Following the table of differentiation as laid down in the excellent article by Dr. Parham in the October number of the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*, where proper credit is given for authorship, it is proposed to analyze the symptoms in these cases as observed.

PAROXYSM—In a large proportion of the above-mentioned cases two paroxysms were noticeable; the first coming on usually without a positive chill or chilliness. In no case was a severe chill noticed.

TEMPERATURE—Usually high in the beginning, became after slight remission high again toward the end of the attack, the third or fourth day, in no case reaching 105 deg.

In only one instance was a subnormal temperature noted. This was on the fifth day in a man who had no gastric disturbance, no hemorrhages, a well-marked eruption which desquamated extensively and albumin in his urine. His temperature this day was 97 deg., pulse 70, and when this observation was made he was up, dressed and walking about the house. This temperature was taken in the mouth and axilla.

DURATION—On an average, four days; in mild cases, three; in 50 per cent., five days; in a few cases longer. One man had a temperature for thirteen days, and quite a number prolonged fever from complications, such as gastro-intestinal catarrh, pleurisy, etc.

TONGUE—In all cases not complicated, was broad, white and furred, sometimes indented. Where gastro-intestinal disturbances coexisted, as in a few cases, the appearance was modified.

CONJUNCTIVÆ—Usually mildly injected. In most cases also a hyperemia of the face and neck was noted. No case of subconjunctival hemorrhage occurred.

STOMACH—Was very much disturbed in the early cases, those occurring in the first half of September. The disturbance, how-

ever, began with the inception of the attack and usually improved during the period of slight remissions of fever. The later cases were marked by less nausea and vomiting; indeed, this feature was noticed rarely during the month of October.

VOMIT—Was frequent in early September, but in no case aggravated, yielding promptly to simple anti-emetics.

NEURALGIC SYMPTOMS—Marked in 90 per cent. of cases, in head, back and limbs, especially in the knees. Frequently these pains would be described as a dead tired aching all over. In a few cases simply headache was noted; in a few more, as in the writer's case, only headache and backache.

In no case was delirium or disturbance of mental condition noticed during the attack, with one exception. Sleeplessness was a marked feature in many cases. Restlessness from pain, frequently inability to lie down was bitterly complained of. In no case was there hebetude or anxiety. The patient usually was ready to declare he or she had the "dandy" or the "dago" fever. Even after yellow fever had been reported here these patients would receive with amusement the suggestion that their case was possibly suspicious. The only instance of disturbance of mind was in a boy of seven, who developed meningitis and was unconscious for several weeks, gradually recovering. As sequelæ the writer saw two cases of acute mania, one lasting four or five days and one for about ten days. Several cases of very aggravated hysteria, and in two instances the severest forms of night terrors or nightmare, the latter in young adults.

ERUPTION—In most cases occurred at two stages. First, the injection, or hyperemia of first day, the eruption of the inception of the attack; later from second to fourth day, sometimes even after temperature had gone. In nearly 80 per cent. the more marked eruption occurred, usually a mild macular dermatitis, ending in light exfoliation. In a few cases the eruption was morbiliform; in one, an urticaria pigmentosa followed the dengue. In a small percentage of cases the eruption was not well marked, though usually to be seen on careful inspection. Some of these had light exfoliation.

JAUNDICE—Of mild grade was the rule from first to last. Not a jaundice of the skin, for this was noticeable only slightly in a very few—in no case marked; but a slight yellowness of the conjunctivæ. Jaundice of mild grade is seen frequently among

these people, the result of prevalence of subacute gastrointestinal catarrh. and is usually accentuated by any acute fever.

NERVOUS EXHAUSTION—Marked in nearly every case. The exhaustion usually of a surprising kind. A strong man, not realizing that his sickness had weakened him, would faint sitting in a chair. The writer essayed to answer the telephone the second night of his own illness because no one else in the house heard the ringing. He was not feeling weak, and, though with a temperature of $102\frac{3}{8}$ deg., had made several professional visits during the day without suffering serious inconvenience. While at the telephone he suddenly realized that he was going to faint, and promptly laid down just where he was; but lost consciousness for several minutes. This occurred to a number of his patients; in no case when the patient was in a horizontal position.

SECRETIONS were usually increased. General hyperidrosis was seen in many instances; night sweats were especially a feature.

URINE was usually diminished in quantity, of high specific gravity. No case of suppression was noticed, and only one of uremia, which is described below, in a patient who had chronic intestinal nephritis for several years.

It is a matter of serious regret to the writer that the urine was not examined and the results of the examination recorded in every one of the above cases. The demands of a general practice at such a time made this almost impossible. The examination for albumin has been recorded in about fifty cases. Eight of these presented histories of previous kidney trouble and are therefore excluded. Of the remaining records, nineteen were made in September and twenty-three in October. In nine cases of the nineteen, and in eleven of the twenty-three, albumin was found present on the third and fourth day, by the tri-chloroacetic acid test. In only six of these cases was albumin present in large amount. It would occur that the above records represent the frequency of this symptom in the most serious cases, and this to a certain extent is correct. While it can not be stated that even the larger portion of the severer cases appear in this record, the examination of urine was usually made where the symptoms appeared most aggravated; and the percentage shown above would probably be much reduced if the record was complete.

HEMORRHAGES occurred in about 10 per cent. according to the records; from the nose, from the gums, from the throat and from the vagina and uterus usually. One patient reported quite a large hemorrhage from the bowel. Another after having recovered sufficiently to be back at his usual business for a whole day, ate very heartily and not prudently, and that night and day following vomited continuously, the vomit being accompanied by probably three ounces of bright red blood. This gentleman had long been a sufferer from chronic gastritis. Epistaxis was seen a number of times and occasionally was profuse. Hematuria was noted in three cases, but was slight in all. A large number of females suffered from metrorrhagia and menorrhagia.

BLACK VOMIT was observed in no case; nor was it reported in any of these cases. The only case of hematemesis is already noted.

REGARDING THE MORTALITY—It was practically *nil*. From the date when the first case was seen to November 1, only one death occurred in the writer's practice; and indeed this is the only fatality to present date (November 26th), when dengue has about disappeared, among patients suffering from this fever. This patient had had chronic interstitial nephritis for four years to the writer's knowledge and her health had been so feeble for a long time as to justify the expectation of her death. The records of examinations of her urine for these years have been preserved and Dr. H. P. Cooke of this city saw her in consultation nearly two years before her death. She returned from San Antonio and a few days later developed dengue. The writer saw her in consultation twenty-four hours before she died. During this attack, which had lasted four or five days, she was under treatment of her brother-in-law, a physician of our city. At the time of consultation she was delirious, vomiting continually, fever 101 deg., pulse 100; and she died in convulsions on September 10. If this patient had yellow fever the infection was in Galveston a month before Dr. Guiteras made his report. And yet up to the date of the report (October 9) the above case was the only fatal one.

THE RAPIDITY OF SPREAD of this disease has been most marked. As Dr. Parham suggests in his article, it spread "like wildfire." The writer's visiting list shows that during the week ending September 11, about the usual number of

patients were seen. The next week the number is more than double. The former week only 10 per cent. were cases of dengue, the latter 70 per cent. were dengue patients. While the first case was treated in the last of July, the patient remained only a day or two and returned to his home in San Antonio. During August only a few scattered cases were seen. From the 5th to the 12th of September, nine in all were treated. From that date the city was full of the disease, and not only this city but the whole State began to report cases. From San Antonio, where it prevailed extensively in July and August, the infection seemed to scatter everywhere.

WANT OF CORRELATION OF PULSE AND TEMPERATURE occurred so frequently as to be almost the rule. A temperature of 102.3 deg., pulse of 66; 103 deg., pulse of 80, and so on are frequently noted. This want of correlation was noticeable in some cases from the beginning of the attack; in other patients it was more noticeable during the second paroxysm.

Among these cases there were only a few in which the lymphatics were involved. In these, enlargements were of the cervical or axillary in most patients—pretty generally in one case—and of the glands about the saphenous opening alone in one case.

The writer takes the position that the above were cases of dengue, and the diagnosis would not be called in question except for the three features, viz.:

1. Hemorrhages.
2. Albuminuria.
3. Want of correlation of pulse and temperature, which, according to the usually accepted opinion, do not belong to the history of dengue.

If we review the records of past epidemics we will find all of the above features frequently recorded in well recognized dengue fever.

Eugene Foster, M. D.,* describes hemorrhages from the mucous membranes and occasional black vomit, as seen in the epidemic in Augusta, Ga., in 1880. Dr. H. D. Schmidt† describes the same feature as belonging to dengue fever, and quotes two cases of black vomit in children sick with that disease, as

* Reference Handbook of Medical Sciences, Vol. II, 397.

† Pepper's System of Medicine, Vol. I.

recorded by Dr. Holliday in New Orleans (1878). Matas* concedes that hemorrhages are seen in dengue—though slight and insignificant—and black vomit rarely.

Regarding the prevalence of albuminuria in this disease there are no reliable statistics showing its frequency. Those who should be authorities content themselves by saying, "albumin rarely present;" "albumin exceptionally present," etc. About all one can glean from study of classical articles upon this point is a conviction that no one knows just how frequently albuminuria has appeared in previous epidemics. Among the cases of which this paper treats it would appear to be more often than on previous occasions, probably for the reason that the trichloroacetic acid test is more delicate than the tests formerly used. Osler says "the presence of albumin in the urine, upon which some writers lay so much stress, as a distinguishing feature in yellow fever, is far too common a symptom in all forms of malaria to be worth much as a guide." It is undoubtedly true that mild and transient albuminuria is a feature of a large number of acute forms, especially when accompanying an exanthem.

The slow pulse with elevated temperature was first noted and described by Samuel Henry Dickson†. This observer mentions a pulse as low as 40. Matas quotes Thomas as describing the pulse slower than normal, sixty or sixty-five per minute. Bemiss' article on yellow fever (Pepper, *loc.cit.*) speaks of having seen slow pulse and rising temperature in dengue fever.

While the majority of writers describe the pulse and temperature as keeping pace with each other, the divergence certainly has been well marked and clearly recorded in numbers of instances and as a feature of several epidemics; probably another emphasis upon the protean character of this affection. This lack of correlation has frequently been noticed in other acute fevers by Dr. Guiteras, among others, who mentions it as occurring in typhus and certain forms of malarial fever. It has often been referred to as a feature in typhoid fever and in jaundice. The writer has under treatment at this time a patient in the second week of a malarial remittent fever, whose pulse is 80, temperature 103. But these very features have been ob-

* Keating's Cyclopedia of Diseases of Children, Vol. I.

† Bell's Library, 1839.

served in this disease as it prevailed in this State in previous epidemics, when yellow fever was not in this Southern country, and there was not even a suspicion of its presence. This was true of the epidemic of 1885 in Texas, as it is remembered and recorded.

Dr. Paine* mentions among other interesting facts observed in the epidemic in 1885 the frequent occurrence of hemorrhages from the mucous membranes. No mention is made of albuminuria or of the behavior of pulse and temperature, but as attention was called to this record by Dr. Paine in a conversation in which he also spoke of the frequency of albuminuria and a want of correlation of pulse and temperature, the writer asked for a reply in writing to a note of inquiry. Dr. J. F. Y. Paine is well known as a careful and accurate observer and a conscientious recorder. The following is his reply:

GALVESTON, November 20, 1897.

My Dear Doctor Lee—Your favor of the 12th inst. with reference to my experience on certain points connected with the epidemic of dengue which prevailed here in 1885 came duly to hand, but the pressing demands of my occupations have caused me, unintentionally, to overlook it until now, for which omission I beg you will forgive me.

I had frequent occasion to examine the urine of patients suffering from dengue during the prevalence of the disease in this city in 1885, and found albumin, in varying proportion, in numerous instances. Similar observations have been noted by other physicians of this place. In the light of recent events I greatly regret that I did not examine the urine of every patient so affected as a matter of routine. The record of such an investigation would doubtless have possessed inestimable diagnostic value. The want of correlation between pulse and temperature was a noticeable feature in the majority of cases who had the disease in severe form.

Very sincerely yours,

(Signed)

J. F. Y. PAINE.

Further, the above features were observed in dengue cases in San Antonio, Austin, Houston, Belton, Palestine and many other points in the State. In support of this proposition the testimony of numbers of physicians could be furnished.

It is submitted that in the light of such evidence the position

* Transactions of Ninth International Medical Congress, 1887—Vol. IV, fols. 470 and 471.

is sustained that if the cases recorded above as occurring in Galveston were yellow fever, then this disease has prevailed during the last few months all over the State of Texas, with a remarkably small mortality. In this city, on a liberal estimate of the mortality in dengue, including complicated and so-called suspicious cases, the ratio would not be larger than one-twentieth of one per cent.

When on October 9, Dr. John Guiteras made his report, that he had found eight cases of yellow fever in Galveston, the writer was unable to agree with the diagnosis and declined to accept it for the reason that in conversation with Dr. Guiteras, a conversation sought for the purpose of gaining information, the clinical symptoms given as a basis of diagnosis were only such symptoms as the writer had seen and noted frequently in dengue fever nearly a month before that date. The investigation of the expert had revealed nothing new unless upon the question of facies, a point upon which certainly there is much room for error.

The writer is an admirer of Dr. John Guiteras. He is familiar to a certain extent with his writings and his work. He has the most unlimited confidence in the integrity and sincerity of Dr. Guiteras, and he has never heard any other sentiments expressed by any member of the medical profession of Galveston. But the writer still has his convictions, not the result of prejudice, the fruit, as he believes, of careful study and calm judgment—and he is willing to defend them. When Dr. Guiteras made his diagnosis, the mortality rate in this city was running from seven to nine per thousand for the year, the lowest it had been in years. The records of the health department of Galveston for August, September and October, 1895, 1896 and 1897, show number of deaths as follows:

August, September and October, 1895, 184 deaths, all causes.

August, September and October, 1896, 176 deaths, all causes.

August, September and October, 1897, 153 deaths, all causes.

These records are in the face of a steadily increasing population. Dr. Guiteras impresses the importance of an examination of the mortuary records in the determination of the presence of yellow fever. Surely the above record does not bear out his position. In his report "on observations in Texas" he speaks of, as occurring in the mortuary record of Galveston in Septem-

ber, 1897, "one case of heart disease, age 22 years; one case chronic disease of the kidneys and dengue in a female aged 24, and one case of purpura hemorrhagica, age 7." The impression in his mind, and this he intends to convey to the general public, is that the above were cases of yellow fever which the attending physicians did not recognize. It seems but just for a community which had as much at stake as this, to expect the doctor not to include any facts in his report, nor to consider any facts in making his diagnosis, until he has fully investigated those facts and knows he is not misled. If he had inquired into the history of the above cases he would not have included either in the way he has done. The case of heart disease referred to died September 8. The subject was a young lady widely known and well beloved in this city, who had been a long time in such precarious health that her condition was known to her friends and her death was expected; although she was really not confined to her bed. Her death came suddenly, without previous illness except organic heart disease. She had that day been out among her friends, busy as usual in good works, and died without a moment's notice. The female whom he mentions as dying at 24 years, of chronic disease of the kidneys and dengue, was the patient whom I saw in consultation, whose case I have fully recorded as dying September 10, a month before Dr. Guiteras made his report. I signed the death certificate. If the doctor had ascertained that fact from the health department and given me an opportunity I would have gladly saved him this error. The third patient died September 24, 1897. The case passed through the hands of several physicians, but the history seems to clearly indicate that the child died from repeated hemorrhages, due to a growth in the post-nasal space; the purpuric spots probably being result of anemia induced by repeated losses of blood. As bearing upon the diagnosis of this case I include a note from Dr. Geo. P. Hall, who devotes his attention to the eye, ear, nose and throat, and who saw the child in consultation.

My Dear Doctor Lee—Referring to the case of Decey child I can only give an opinion as to the local condition of the nasopharynx, since my examination did not extend further. I found the patient very pale and exhausted, with a history of frequently recurring and somewhat serious hemorrhages, the blood coming from both pharynx and stomach. On inspection I found blood

trickling down the pharynx from the post-nasal space. This blood was occasionally swallowed, and, I think, explains the reason why bloody vomit was ejected. A rhinoscopic examination under the circumstances was impossible, but on introducing the fingers behind the soft palate a soft yielding mass was found high up in the vault, which I took to be a new growth of some kind. This view was further strengthened by the history of chronic nasal obstruction and the withdrawal of a small portion of a membranous-looking mass, which may have been part of the envelope of a neoplasm. The hemorrhage following the withdrawal of the finger was not greatly increased.

I did not see the case again, and can, therefore, only give you the foregoing facts. My visit was made on the invitation of Dr. Geo. S. Sykes, who was at that time the attending physician.

I have the honor to be very respectfully yours,

G. P. HALL.

Now in the light of subsequent events, was or was not Dr. Guiteras in error in his diagnosis October 4 to 9?

Certainly the result is different from what he expected. Before he left he stated freely that within ten days there would be so much yellow fever in Galveston and Houston that the question of diagnosis would not admit of discussion. Yet for nearly a month after he left even those gentlemen who found cases when he was here, and within a few days after his departure, failed to find a suspicious case.

All who are familiar with the subsequent history of the epidemic status in all other places he has ever visited in which he took a position similar to that here, concede that the course of events in Galveston has been unique.

To the mind of the writer the strongest argument against the correctness of his diagnosis is that although there have been some twenty cases diagnosed as suspicious and as yellow fever in Galveston since October 1, including his eight cases, according to the health department and also according to the statements of physicians who made these diagnoses, not a single new case has come from any one of these foci, all of which were distinct and apparently had no connection with each other.

Given a yellow fever which is not contagious and you have a disease from which no one will flee, or against which no one will quarantine. It is of course conceded that occasionally isolated cases occur among the immunes. But here are twenty-odd foci, in most of which absolutely no isolation, and in the others

late and only partial isolation, yet not a single infection from any focus.

Further, of the cases regarded as suspicious during life, two have died, and in both cases the conclusion arrived at from the autopsy negatives the diagnosis of yellow fever.

It seems to the writer that the conclusion is fair, that if Galveston has had yellow fever this season, the whole State has had it. If the disease has existed here, the mortality has been so low as to revolutionize prevailing ideas about the fatality of this sickness. If this was yellow fever, at least in this epidemic, the infection has not spread from foci, but has immediately scattered over the community in a manner never before observed. It has affected alike those who were immune from other epidemics and were not immune, as has been frequently noted.

In a recent communication to the Board of Health of this city, Dr. Guiteras declared that at that date (October 28) he was more afraid of the appearance of the fever in the spring of 1898 from the foci he diagnosed. To the writer, a connection between yellow fever in the spring of 1898 and foci in Galveston diagnosed early in October, 1897, but which did not spread during more than a whole month of warm weather, would be very much more unlikely than a connection with an infection which may be introduced during the winter months in bedding, household goods, freight, etc., brought in after the quarantine is raised. In short, if yellow fever should appear in this city in the summer of 1898, it would not influence the writer's opinion as to the character of the disease which has prevailed here during the last season.

In conclusion, the writer desires to say that while these have been his earnest convictions, and while he has at all times been guided by them, he has recognized the importance and gravity of the situation; that it was impossible to be absolutely certain; that a conservative policy demanded the protection of this community from any error in failure to recognize the presence of the infection of yellow fever in mild cases; and he has continuously and unceasingly advocated and urged strict quarantine against infected points, absolute isolation and most thorough disinfection of all cases which were even suspicious, or which any physician considered suspicious; he considers it the duty,

not only of the health authorities to encourage and insist on the reporting of all such cases, but also the duty of all physicians to promptly do so.

Clinical Report.

A CHARACTERISTIC CASE OF YELLOW FEVER, WITHOUT ALBUMINOUS URINE.

BY D. BORNIO, M. D., NEW ORLEANS, LA.

In view of the fact that the idea prevails among recognized authorities that yellow fever can not occur without albuminous urine, I submit the following interesting case:

On October 25, 1897, at about 2:30 A. M., I was called to see Miss C— D—, aged 11, native born. She had a temperature of 101, pulse 120, face congested, eyes glistening, intense thirst, uneasiness in the epigastric region, nausea, marked constipation (notwithstanding two doses of castoria already given by the mother), slight headache, pains in the legs and back.

The father said that the patient "was taken sick the same night, October 24, about 10 o'clock, with fever and cramps in the abdomen. Two nights before, while in bed, she had felt cold. Next day was apparently well, but very quiet. October 24, felt sleepy, had no energy, though ordinarily active."

At my second visit, at 9 A. M., October 25, the patient was very much prostrated, having thrown up a great deal of mucus and bile. Temperature $101\frac{3}{8}$, pulse 125. I ordered a dose of calomel and soda, gr. iiss each.

The urine was examined; found acid, but no traces of albumin.

At 3 P. M. temperature 102, pulse 130; urine again examined, scanty, acid, no traces of albumin.

At 3:45 P. M., about ten minutes after my departure, the patient had the first attack of black vomit, about two cupfuls; 8 P. M., same day, second attack of black vomit, one cupful (measured).

I was hurriedly summoned at this occurrence. I thought I was dealing with a case of malarial hemorrhagic fever, influenced by the repeated assertion of renowned experts of national repute that "no albumin in the urine, no yellow fever," though the careful scrutiny of the matter ejected and the careful examination of the throat and nose showing only slight congestion satisfied me that the blood vomited was from the stomach. I was forcibly reminded of my past experiences in the epidemic of 1878, while a medical student under the direction of my lamented preceptor, Dr. I. G. Hava, now deceased.

I had given my patient, by rectum, a solution of bisulphate of quinine, 10 grs., every three hours, together with an infusion of flaxseed and small quantities of vichy, by the mouth, as often as desired, when, after a careful consideration of the case, I thought it wise to have consultation with a colleague, Dr. Adrian Hava. He agreed in the strange features of the case; the absence of albumin, pulse and temperature nearly corresponding, and the child being desperately ill from exhaustion more than anything else.

We determined to have further consultation with Dr. Touatre, whose experience and ability in yellow fever is well known.

Meantime the patient was given 10 grs. of potassium bromide and 5 drops of fluid extract of ergot, which the stomach retained, though all other liquids had before this been ejected. From the first dose there was no more vomiting, so the medicine was not repeated.

Dr. Touatre confirmed the diagnosis of yellow fever after examining the black vomit and the urine, in which, again, no albumin was found, although he stated that in a day or two we would find albumin. At this time, 11:30 p. m., the temperature was 101; pulse, 130.

The microscopic examination of the matter ejected proved it to consist of blood altered by the gastric juice.

The test for albumin was made twice daily by the ordinary method (nitric acid and heat), as well as by the ring test and picric acid test. *At no time was there the slightest trace of albumin.*

The table below records the temperature and pulse from the first day to the ninth day, on which day convalescence began, and after which the record was unnecessary, as the pulse and temperature resumed their normal.

October 24—Temperature, $101\frac{1}{5}$ and $101\frac{4}{5}$; pulse, 120 and 128. (Taken A. M. and P. M.)

October 25—Temperature, $101\frac{1}{5}$ and $101\frac{1}{5}$; pulse, 102.

October 26—Temperature, $101\frac{1}{5}$ and $99\frac{3}{5}$; pulse, 116 and 112.

October 27—Temperature, $99\frac{1}{5}$ and $98\frac{1}{2}$; pulse, 111 and 96.

October 28—Temperature, $98\frac{3}{5}$ and $98\frac{4}{5}$; pulse, 100 and 90.

October 29—Temperature, $98\frac{1}{2}$ and $98\frac{4}{5}$; pulse, 90 and 76.

October 30—Temperature, $99\frac{2}{5}$ and $98\frac{3}{5}$; pulse, 52 and 78.

October 31—Temperature, $98\frac{3}{5}$ and $98\frac{3}{5}$; pulse, 84 and 81.

November 1—Temperature, $98\frac{4}{5}$ and $98\frac{3}{5}$; pulse, 81 and 78.

Besides the treatment above noted, vichy was given at first by the mouth and subsequently alone and with milk by enemas.

On the ninth day, chicken broth was allowed; on the fourteenth day, solid food.

On the nineteenth day the patient was discharged cured.

Digitalis was given in two-drop doses as occasion required.

OBSERVATIONS.—I believe the reason of the absence of albumin is to be found in the low temperature rate, it having at no time exceeded 102 deg.

Another point of notice is that we may have a severe case of yellow fever, without albumin, and with but little fever.

I consider all cases of yellow fever of serious importance in their effect upon the organs in a pathologic way. I have noticed the predisposition to black vomit when the pulse rate is high, and not as is customarily described as occurring with the declining pulse, no matter whether it is the fifth, seventh or ninth day, or the third day of the disease, these being, in Cuba, called the critical days.

I coincide in the opinion that yellow fever may cause death in six hours, and I believe from practical experience that these patients may die without any elevation of temperature, or even with subnormal temperature. I consider that black vomit early in the disease is less dangerous than later in the disease.

In the above case, all examinations of urine were made conjointly with Dr. A. Hava, the consultant in the case.

I have reported this case as a typical case of yellow fever, though occurring without the usual albumin, and at first without the temperature and pulse relation, this being established later, on the seventh day.

Correspondence.

OUR NEW YORK LETTER.

At a meeting of a Committee on Appropriation held in the Mayor's office on December 8, there was an animated squabble over the question of the appropriation of public monies for private charities. The Medical League had sent a committee, with Dr. Sturgis at the head, to protest against such appropriation. Of course, all the institutions wishing help had sent representatives. Dr. Sturgis opposed every request made by private institutions, holding that the money was used in treating those who were amply able to pay a physician for services. There was a violent discussion over the request of the Sloan Maternity for \$8000; Dr. Sturgis claimed that it already had an income of \$12,000; it had been built and maintained by wealthy people and it was an outrage to ask money from the city for that institution. In the case of a number of other requests he held that the benefit to the city's poor was by no means in proportion to the amount of money asked. These doctors had, perhaps, the liveliest discussion over this question and the Mayor seemed most uncomfortable; his generous impulses seemed to cause him to forget a statement he made at a meeting of physicians recently to the effect that the appropriation of public money to private charities was an evil that should be stopped. Although many requests were granted; owing to the efforts of Dr. Sturgis, a number were held over for further consideration. The feeling of the larger part of the medical profession continues to grow more marked against charity abuse and may perhaps be accounted for by the fact that the present season is said to be of the dullest for physicians.

The question of when to operate for cases of appendicitis is still waiting to be positively decided. Dr. McBurney, at a clinic at Roosevelt Hospital, on December 4, discussed the pros and cons of this question. In his opinion it is highly desirable to remove the appendix in the intervals of health, and certain cases justify treatment to this end. It seemed wise to operate in the interval succeeding the first attack. Because this attack is a mild one is no argument for postponing the opera-

tion. Dr. McBurney operated on such a case because, he said, the patient was almost certain to have another attack of appendicitis. Since the last attack this patient had been perfectly well except for tenderness on pressure over the region of the appendix and slight induration. Because the patient has recovered from a previous attack is no reason for trusting that there will be a like result in the future. When a patient has had a well defined attack of appendicitis he is quite sure to have another which may demand immediate interference; then the operation will probably be more serious and the chances of life less.

These views are quite different from those expressed by Dr. Ferguson, of Troy, at the recent meeting of the New York State Medical Association. Dr. Ferguson read a paper at that time in which he advocated more conservatism in the treatment of appendicitis. He cited a number of instances where patients had recovered without operation and he thought it a mistake to subject any one to the risks of an operation unless the symptoms showed that such measures were imperative. He said a pulse of 120, which indicated suppuration, was a positive sign for immediate operation. One case to which our attention has been called contradicted this statement. Dr. Bryant, a short time since, operated for recurrent appendicitis, and removed a gangrenous appendix where the *pulse had not been rapid* and where *there was no elevation of temperature at all* for one week previous to the operation.

Dr. Walter F. Chappell, at a recent meeting of the Laryngological Section at the New York Academy of Medicine, showed a new tracheal tube consisting of an outer and an inner canula. The outer one is furnished with a male thread; the inner one is part wire cage work and part tube. The tube part ceases at the anterior wall of the trachea, but the cage work passes through into the trachea. The inner end of the canula is tipped with a saucer-like cap which presents a smooth surface to the mucous membrane of the posterior wall of the trachea. To prevent the tube from pressing upon the posterior wall of the trachea the external end of the inner canula is fitted with a movable nut, cut with a female thread to fit the male thread of the outer canula. By this arrangement the inner canula can be shortened or lengthened to suit the diameter of the trachea and so prevent

pressure. This tube would be of special service in cancerous cases and in cases of recurring papillomata.

Dr. Berens, at the same meeting, showed two specimens of salivary calculi, the one weighing forty-nine grains, the other three grains. There was a history of recurrent suppuration of four years' standing; the existence of the larger calculus was not ascertained until it was discharged. The smaller was found upon probing the submaxillary gland. It is seldom that such large salivary calculi are found.

At a meeting of the Genito-urinary Section at the Academy of Medicine, held December 14, Dr. Willy Meyer demonstrated Freudenberg's modification of Bottini's incisor, for the galvano-caustic radical treatment of hypertrophy of the prostate. It has a cooling apparatus attached which prevents any injury to the parts about the prostate. In all cases of prostatic enlargement Dr. Meyer advised the trial, first of Bottini's operation; then, resection of the vas deferens; then, castration; and, lastly, prostatectomy by the various methods. He did not think Bottini's operation had been sufficiently tried in this country, but that in the future it was destined to give relief to this class of sufferers.

E. F. S.

MEDICAL PRACTICE IN WASHINGTON.

To the Editors of the New Orleans Medical and Surgical Journal:

I am in receipt of many inquiries concerning the medical laws of the State of Washington. I would say that all persons intending to practise medicine or surgery in the State of Washington are obliged to pass an examination before the State Board of Medical Examiners.

These examinations are held the first Tuesday in January and the first Tuesday in July. The January meeting is held on the west side of the Cascade mountains, and the July meeting on the east side.

No temporary certificates are granted by this board, and no exception is made to this rule.

F. H. COE,

Secretary Medical Society, State of Washington.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

HAPPY NEW YEAR!

To all our subscribers, all our advertisers, to all our friends, we sincerely wish a Happy New Year!

Mere wishes, however, are empty things, and the JOURNAL would like to remind its readers that this is the time also to make good resolutions. Let us see what the profession should determine to accomplish during the coming year.

In Louisiana, the most pressing question is that of a State Board of Health. Ours is the duty and the ability to show the people, first through their constitutional convention, next through their Legislature, that we must have a *State* Board in fact and not only in name; that it must be removed from the pale of politics; that its medical members, who ought to be in the majority, ought to be recommended by the State Medical Society; that such a board would not only guard the public health, but, by deserving public confidence, would prevent the panics that prove more damaging than pestilence.

The profession of the whole country, but most particularly of the South, should resolve that this year must see the establishment of national supervision of health, and consequently quarantine matters. An accompanying article dwells on this subject.

We must strive to remedy the evils of contract practice. In some parishes of this State, notably Franklin, this has been done, and the Orleans Parish Medical Society not long ago declared that contract practice was contrary to the interests of the public and the profession both. Those who do contract work are not to blame, for they have had plenty of example, but the system is wrong and must be corrected.

Promiscuous free prescribing to the undeserving must be stopped. Public institutions, created and maintained for pur-

poses of charity, must not utilize our gratuitous services for those who are well able to pay. Either they must be reserved for the poor or if, making another step toward socialism, the State should declare that it wishes to treat as well as to educate *all* of its people, then all those giving services to such institutions must be paid.

The standard of medical education must be constantly raised. Not only by increasing the curriculum and the years of study, but by demanding better preparation before matriculation and, especially, by insisting upon more thorough tests on the part of independent examining and licensing boards.

Physicians must support the honest medical journals, those which strive to put before them instructive articles and reports, legitimate medical news, accounts of true scientific progress in the various subdivisions of medicine; those which do not print everything that pays, which do not publish made-to-order articles simply because there is "something in it;" those which can not afford to be given away because they accept only honest advertisements.

Many other things could be enumerated, but these are sufficient; first, because if attained during 1898 there would surely be sufficient reason for gratulation and gratitude; second, because there is after all only one condition necessary for their accomplishment as well as that of numerous other reforms—namely, union of the medical profession.

To a united medical body nothing would be difficult. The JOURNAL is ready to assist in organizing it, and will spare no effort toward that end. That is the best resolution it can make for the New Year.

THE PUBLIC HEALTH A NATIONAL QUESTION.

So wide an interest has been elicited in the question of a perfect system of public health protection that it has created a demand for a national organization. Those of us within the circle of the medical profession realize fully how momentous a question the one of public health is at this time. While some universal system of definite and of commensurate method must be devised and arranged so as to suit the needs of all the public

of every one of these United States, arguing along the line of quarantine, the Gulf and Atlantic seaboard States are the more interested. This may explain the several bills already before the national Congress.

Much as we may need legislation, the same legislation must be arrived at only after mature deliberation, for the question is vital.

The possibilities of a measure for a national health organization are apparently numerous, if we can judge from the multitudinous discussions and suggestions which have occupied the several divisions of the periodic and daily press for some time past.

Those bills now before the national Congress and those on their way to this body all aim at the essential purpose of any such measure. Just exactly as other public interests have been consolidated for the ultimate result of unanimous control and well defined system, these aim at such a control and nominate the national government as best entitled and best qualified, on account of its resources in wealth and discipline, to organize the method of handling the public health.

Three essential phases of distinction have been suggested for the adoption by Congress, in substance as follows :

1. A national control, under a Secretary of public health, appointed by the President, who shall direct the control by subdivisions of his office, the functions of each being adequately and comprehensively specified.

2. A commission of public health, acting with the State Boards of Health as a conference or councillorary commission, with mutual power, with like subdivisions and offices.

3. The United States Marine Hospital Service, with expanded function, in charge of quarantine and with supervising control of all sanitation.

No doubt more suggestions will be made, but the sole issue would seem to be based upon the question of absolute Federal control, or qualified Federal control.

Resolved into their elements of argument, the press, medical and secular, are either for or against this disposition of the matter. States' rights are mooted, and argument is harassed by the disputation from individual States that there is a tendency

to centralization, which in time would discriminate against localities, particularly where a commercial interest was at stake.

It does not appear to us to be a question of lengthy argument for us to admit the desirability of organized protection of the public health, nor for the disposition of the right to establish this under a national control.

States' rights are necessarily subservient to the general good, and in the very argument, most often and most strenuously urged for the commercial advantage or disadvantage, there is a stronger counter-argument in the action of the government already taken just along this line in the establishment of an Interstate Commerce Act.

If such an act, radical in its establishment and as radical as supreme in its execution, bearing upon the most important interstate relations in commercial questions, has been made successful without serious opposition, except from corporations, the proposed health legislation must be as welcome and as apt.

The possibilities, then, of national measures for Federal control are tenable, and the desirability is evident from the experience of those States which have suffered most from the absence of any protection, even that of moral obligation, at the hands of neighboring States.

We can hope for an ideal legislation, however, which will give us a system of public health management which may fulfil the necessities of the whole country. This must be arranged with a judgment equalizing the disposition of patronage so as not to provoke individous comment; it must look to the needs of sanitation in the large cities inland as well as seaport; it must equally arrange for interstate agreement upon quarantine so that suspicion will be a thing of the past, and the shotgun quarantine will be no longer a necessity.

An amalgamation of the several suggested bills now under consideration might nearly fulfil the ideal for legislation. What we want and what we should have is a separate national health organization, with its own purposes and its own functions, distinct from that of any other governmental department.

The medical profession alone is deprived to-day of aspiration to national recognition, and there should be a cabinet office open to us. None are more interested in the public from the standpoint of health and sanitation than we, and the stimulus to the

exercise of our desire is wanting. With a distinct department, acting under the direct influence of the national capital, the whole of the medical profession could be enlisted in the effort to maintain the relations which certainly could be made appropriate to the occasion.

The ideal governmental supervision can not perhaps be obtained in these days when public offices are usually arranged from political motives first, and for their usefulness secondarily. Deliberation in our national body is not rapid at best, and the outcome is not promiseful for the near future, as multiplication of opinions means delay in action. Just at present we of the Gulf coast are threatened with the periodic invasion of disease, and as the coming summer approaches the danger increases. We need organization, and we need Federal organization. It appears to us, then, that with the already current opinion that such disposition is to be made, the Marine Hospital Service could assume the commission of handling the public health, if its function were authoritatively expanded. This is an existing organization, steadily growing in importance, with a working force of scientists now engaged in investigation of medical truths of all descriptions. Part of their present usefulness has resulted from assumed function, but as it has been of use it is not open to adverse comment.

The Marine Hospital Service has at this moment the strength of political position and the evidence would show that the present incumbents are anxious to increase the importance of the service, which, being a service of the Treasury Department, carries the influence of this part of the government with it; more than this, in his message to the National Congress, the President has recommended this disposition of the public health question. With an established system already located throughout the country, with officers in charge, trained in a service well disciplined and ready for added work under larger opportunities, the beginning of a desirable end is at hand.

Such a disposition of the all-important question must be looked upon as a compromise, for the United States Marine Hospital Service can not be at any time as far reaching in its purposes or in its action as a special organization with the sole object of considering public health regulations and methods. In the desire, however, for this office, the object of the Marine

Hospital Service is not unworthy, it is not partisan, therefore only political in a degree, which is tempered by zeal.

At all events, we trust that unanimity will make the demand upon Congress a pressing one, and that the solution can be made satisfactory when the step may be taken to accomplish it.

NEXT MEETING OF THE STATE SOCIETY.

The president of the Louisiana State Medical Society has fixed the time of the next annual meeting, this duty devolving upon him owing to the lack of a meeting through fears of overflows last year. The session will take place in New Orleans on May 10, 11 and 12. It would be proper for the officers and members of committees to commence giving active attention to the preparations for this meeting, which must be made a success. Those members who intended to read last year should shake the dust from their papers, review them, and touch them up; others, who are in better condition than a year ago, must swell the list of scientific contributions. Everybody must come.

Medical News Items.

THE FOLLOWING SUGGESTIONS FOR THE PREVENTION OF YELLOW FEVER next summer are so opportune that we reproduce them, feeling that they are applicable to other districts also lately infected:

“In view of our sincere desire to prevent the recurrence of any epidemic disease, we earnestly request the citizens of Biloxi and of the county of Harrison that they comply with the following measures for certain disinfection of all places in said city and county:

“1. Open wide to the cold air and sunlight every house on every cold day, not only once, but every cold day from now until March.

“2. Hang out of doors all mattresses, pillows, cotton comforts, blankets and clothing.

"3. Unpack and hang out of doors all kinds of clothing, both woolen and cotton, which may be packed away in drawers, trunks or boxes.

"4. Turn over to the disinfecting service all mattresses, pillows, comforts, etc., used in or about the sick room for any sort of fever during the past summer and fall.

"Let us not quibble about whether it was yellow fever or dengue or malaria; it is nothing now to us, but we wish to absolutely bar any recurrence on the Mississippi coast of any fever next summer, and the disinfection will be done most carefully. Let us join in this as a patriotic measure for the common good.

"Lastly, the mattresses, pillows and comforts will be disinfected by steam, the other things by formaldehyde gas, and in neither case will anything be damaged. If it be necessary to burn any badly infected mattresses the government will replace the mattress with another of exactly the same quality. No discomfort and no loss to any one will occur.

"J. H. WHITE,

"*P. A. Surgeon in Charge of Post-Epidemic Infection.*

"WM. GORENFLO,

"*President of Biloxi Board of Health.*

"W. T. BOLTON, M. D.,

"*Health Officer of Harrison County.*"

THE NORTH TEXAS MEDICAL ASSOCIATION held a successful meeting in mid-December at Dallas. Fort Worth was selected as the next place of meeting. Among other subjects discussed, the question of an exemption from State occupation taxes upon physicians and that of compensation for expert testimony in criminal cases were favorably considered.

The following officers were elected for the ensuing year: President, Dr. R. D. Poots, of Bonham; vice president, Dr. H. O. Masters, of Rock Hill; secretary, Dr. H. F. Miller, of Sherman; treasurer, Dr. S. F. King, of Sherman.

Delegates to the American Medical Association—Drs. Armstrong, of Dallas; Inge, of Denton; Gilcrest, of Gainesville; Saunders, of Fort Worth; Markham, of Denton, and Chilton, of Dallas.

Delegates to the State Medical Association—Drs. Smoot, of

Dallas; Walker, of Paris; Bradford, of Honey Grove; Irwin, of McKinney, and Fleming, of Mount Vernon.

New Members of Judicial Council—Drs. Shelmire, of Dallas, and Pennington, of Greenville.

DR. JAMES A. CRUIKSHANK died at his home on Bayou Rapides, Rapides parish, La., December 5, 1897, of typhoid fever. Dr. Cruikshank was both highly appreciated and respected in the community in which he lived.

THE MEMBERS OF THE STATE BOARD OF HEALTH OF LOUISIANA in office during the recent outbreak have resigned, owing to the demand of the daily press and various commercial bodies, representing the popular expression.

THE PHILADELPHIA MEDICAL JOURNAL is the name of a new weekly medical publication, to be issued in Philadelphia, beginning this month, by the Philadelphia Medical Publishing Company. The management of the company is entrusted to a board of trustees, in which are representatives of various medical schools. The editor will be Dr. Geo. M. Gould, long associated with the *Medical News*. The subscription has been fixed at \$3.

We should have preferred that this new venture should have maintained the standard of price adopted by the existent weeklies, instead of sacrificing a probable repute to a possible circulation.

THE CHARITY HOSPITAL TRAINING SCHOOL FOR FEMALE NURSES held its graduation exercises in the A. B. Miles amphitheatre on Wednesday, December 15, before a large assemblage, mainly of ladies. There were 17 nurses who received their diplomas, among which were 8 Sisters of Charity. Each graduate was also presented with a medal.

THE LARYNGOSCOPE will publish a foreign edition, at Bristol, England, beginning with January, 1898.

THE SEMI-ANNUAL MEETING OF the Midland Ophthalmological Society will be held Monday, January 3, 1898.

THE ORLEANS PARISH MEDICAL SOCIETY, at its last meeting, elected the following officers to serve during 1898: President, Dr. John Callan (re-elected); first vice president, Dr. Isadore

Dyer; second vice president, Dr. H. A. Veazie; third vice president, Dr. Q. Kohnke; recording secretary, Dr. C. J. Miller (re-elected); treasurer, Dr. F. A. Larue (re-elected); corresponding secretary and librarian, Dr. S. P. Delaup (re-elected).

Abstracts, Extracts and Miscellany

Department of General Surgery.

In charge of DR. F. W. PARIAM, assisted by DR. F. LARUE.

INCISIONS FOR APPENDICITIS, INTENDED TO GUARD AGAINST POST-OPERATIVE HERNIA.—Some recent suggestions for the prevention of post-operative hernia in operations for appendicitis and other intraperitoneal conditions are of sufficient interest to justify bringing them together here for the benefit of our readers.

1. *The McBurney incision*, which is a now well recognized procedure for non-suppurative cases, meets the requirements admirably in uncomplicated conditions, but the restricted operative space makes intraperitoneal manipulation in many cases difficult and the demand for incisions furnishing a larger field was imperative. Several incisions recently proposed resemble one another very closely.

2. *Battle's*. This is an oblique incision in the right iliac region following the direction of the linea semilunaris and usually about midway between the anterior superior spine and the umbilicus. The skin, subcutaneous tissue and external oblique aponeurosis are incised in the same line and the anterior layer of the sheath of the rectus is cut through, exposing the fibres of the muscle. This part of the incision is about one inch from the external margin of the sheath. The rectus muscle is drawn inward by retractors and the posterior layer of the sheath, the transversalis fascia and the peritoneum cut through in one line.

The appendix being removed, the abdominal wound is closed in three layers of interrupted sutures from behind forward, the replaced rectus muscle intervening between the first and second layers. This method is described fully in the *British Medical Journal* for April 17, 1897, and abstracted in the *American Journal of the Medical Sciences* for December, 1897. It closely resembles that now to be described as—

3. *The Kammerer-Jalaguier Incision.* Fred. Kammerer describes in the *New York Medical Record* for December 11, 1897, an incision at the outer border of the rectus muscle. The first incision, about two inches in length, goes through the skin and external oblique aponeurosis. The anterior layer of the rectus sheath is now incised close to its outer border and the rectus muscle dissected from the sheath and drawn forcibly inward so as to expose the posterior layers. This is now incised, together with the transversalis fascia and peritoneum. The wound is opened up with retractors and the appendix removed. The abdominal incision is closed by uniting the peritoneum, transverse fascia and posterior layer of the rectus sheath by a running catgut suture; the rectus, being released from the retractors, falls into place; its outer edge is now united by a few thin catgut sutures at its outer edge; the anterior layer of the rectus sheath is closed by catgut sutures and the external oblique aponeurosis and skin brought together by separate sutures. Kammerer, in a foot-note, refers to a similar procedure of Jalaguier, of the Hôpital Trousseau in Paris, and expresses regret for having overlooked Jalaguier's publication. The methods are identical, except in the one particular that J. divides the anterior layer of the sheath of the rectus a little further inward than Kammerer (1 cm.). Kammerer has had six cases and has been much pleased with the result.

[COMMENT.—This method of Jalaguier we find abstracted in *Centralbl. für Chir.* for October 23, 1897, the original being credited to *Presse Méd.*, 1897, No. 10. J. here describes the incision through the anterior rectus sheath, 1.5 cm. inward from the outer line of union of the anterior into the posterior layer of the sheath, a little further, therefore, than Kammerer says. This plan would seem to give greater security against post-operative hernia than that of Kammerer, since no two in-

cisions are in the same plane and the adhesion of each overlying layer to the under line of suture makes assurance doubly sure.]

4. The reporter in the *Centralblatt* calls attention to *Sonnenburg's incision* along and close to the crest of the ilium as an even better incision than that of Jalaguier, but thinks that J.'s incision is worthy of attention also for the prevention of hernia from laparotomies for other purposes than the removal of the appendix.

5. *Vischer's Incision.* In this connection we would call attention also to the incision described by Carl V. Vischer, in the *Annals of Surgery* for November, 1897. This is made an inch above and parallel to the iliac crest, beginning at the outer edge of the external oblique and running forward to a point corresponding to the anterior superior iliac spine, or if necessary slightly beyond this. The external oblique fibres are separated and the internal oblique and transversalis, very nearly in the same plane, are drawn apart.

It will be seen that these five procedures can be readily resolved into three; the Battle, Jalaguier and Kammerer methods differing only in the manner of opening the anterior layer of the rectus sheath. The most complicated is that of Kammerer, whose modification does not in our opinion add anything to the value of the method. The objection to them all three is the lack of room and the difficulty of getting out the appendix. This objection is overcome in the operations of Sonnenburg and that of Vischer. That of Vischer is much better, as a minimum amount of muscle tissue is cut. They are both good, safe incisions, and although giving deep wounds, afford, except in very fat individuals, sufficiently easy access to the appendix and cecum. Another objection to the incisions in the semilunar line is that pointed out by Kocher, the cutting of the branch of the ilio-hypogastric nerve supplying the rectus muscle. This can, however, be avoided as pointed out by Kammerer in his paper.

STATISTICS OF ANESTHESIA.—At the last German Surgical Congress, Gurlt, of Berlin, read a report on the statistics of anesthesia collected for the Congress. These statistics include

two years, 1895-96 with 29,596 cases, and 1896-97 with 29,173 cases, or a total of administrations for two years of 58,769.

The total proportions given are :

Chloroform, one death in	2,039
Ether, one death in	5,090
Billroth's mixture, one death in.....	3,870
Ether and chloroform, one death in	7,594
Bromide of ethyl, one death in	5,228
Pental, one death in	213

Of these of chloroform were	37,401, with 29 deaths.
And of ether	13,856, with 3 deaths.
Billroth's mixture.....	996, with 0 deaths.
Of a mixture of ether and chloroform	4,927, with 0 deaths.
Bromide of ethyl	1,489, with 0 deaths.

The last (pental) has now been finally abandoned. In the reports by separate years the mortality from chloroform varies from 1 in 1100 to 1 in 4200; from ether, from 1 in 2300 to 1 in 6700. In the first three years' reports there was no death from ether. The statistics have now reached 327,593 narcoses with 134 deaths altogether, or 1 in 2444. Several cases of pneumonia and parenchymatous nephritis have been observed after chloroform, after ether likewise pneumonias and manifold exanthemata.

[COMMENT.—In the abstract of these statistics published in the *Revue de Chirurgie*, November 10, 1897, p. 949, some errors should be corrected as being misleading to those who have not access to the article published in the *Centralbl. für Chir.*, appendix to No. 28, p. 17. It is made to appear that 8 deaths occurred in 5090 ether administrations. This is evidently a misprint and should be 1 death in 5090, as reported by Gurlt in the abstract in the *Centralbl. für Chir.*]

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, New Orleans.

IN AN ESSAY ON THE USE OF SENECIO in disorders of menstruation, Dr. W. E. Fothergill found that this drug is almost an infallible remedy for the relief of functional amenorrhœa. He cites ten cases of this nature in which the drug had the desired

effect. But it will not relieve the pains of dysmenorrhœa, nor will it interfere with pregnancy. He gives it in the form of the tincture, one or two drachms three or four times daily, or the fluid extract in doses of twenty to thirty minims three or four times daily; or as seneciu, one grain as frequently repeated. —*The Medical Chronicle*, September, 1897.

THE GREAT MAJORITY OF CASES REQUIRING THE OPERATION OF SYMPHYSIOTOMY are emergencies and the mother and father should decide the procedure. It is seldom difficult to make a choice between this operation and induced labor. The mortality risk is about 1 per cent. greater in symphysiotomies for the mother, but the child has better chances for survival. So the lessened dangers to the child are to be balanced against the risk of disablement and discomfort to the mother; hence allow the parents to decide. A careful trial of the forceps should be made, in cases seen early, giving the head every opportunity to engage and mould itself. If not successful, then symphysiotomy is the suitable step. Four of the author's previously reported five cases were eminently successful. The fifth case was complicated by extensive cicatricial contraction of the vagina, which required numerous incisions. The bladder and rectum were opened by sloughing, and the parts were infected by the colon bacillus. Recovery seemed probable, when pneumonia intervened and caused death thirty-three days after labor.

The error in this case was in not selecting Cesarean section. Three additional cases did well, and all the children are living. The following directions for performing subcutaneous symphysiotomy are given:

1. Secure full dilatation of the cervix, if possible, without risk to the child.
2. Have the urethra and bladder held to one side with a sound.
3. Make the initial incision a little above the subpubic arch and under the elevated clitoris.
4. Introduce the left index finger within the vagina, against the posterior groove or ridge of the joint, up to the top.
5. Pass a narrow tenotomy knife, with the point close to the joint, up to within a half-inch of the top, and under the overlying soft tissues.

6. Substitute a probe-pointed bistoury and meet the left index finger with the probe over the top of the joint, and work the blade through the joint downward until separation is felt by the posterior finger.

7. Have an assistant press the mouth of the wound and the tissues lying over the joint with a small piece of gauze.

8. Deliver with forceps, if possible, and refrain from suprapubic pressure, aiming to deliver the head through the cervix without drawing the latter down below the symphysis.

9. Hold the bladder well to one side while pressing the pubic bones together.

10. Pass a small strip of gauze into the prepubic wound and another against the cervix, after irrigating, leaving both pieces exposed for easy removal, having refrained from stitching cervix or perineum.

11. Introduce a soft rubber retention catheter into the bladder and leave it until sure the patient can voluntarily micturate.

12. Dress the vulva with gauze and strap the joint with adhesive strips.

13. Remove all the gauze in thirty-six hours and irrigate vulva and vagina twice a day, keeping the vulva carefully dressed between times.—AYRES—*American Journal of Obstetrics*.

LONGYEAR CONTRIBUTES A REPORT OF SIX CASES OF DIPH-
THERITIC PUERPERAL INFECTION, five of which were treated by
the use of diphtheria antitoxic serum, with gratifying results.
In each case a grayish-white membranous exudate was found on
the vaginal walls or upon the cervix, where there had been
erosions, or tears, and a microscopical examination confirmed
the clinical report. Three of the cases presented a mixed infec-
tion of streptococci. This is a valuable contribution to the
etiology of puerperal infection, and at once leads to the considera-
tion of important therapeutic questions, especially the use of
the curette. If it is harmful to remove by force diphtheritic
deposits from the fauces and larynx, the same principle can be
applied to the vaginal and uterine tissues. The indiscriminate
use of the curette is baneful, even in simple infection, and in
cases where diphtheritic infection is suspected it is the wiser
plan to postpone curettage until a bacteriological examination
can be made, a matter of twenty-four hours. If diphtheria is

prevalent, and a reliable serum can be obtained, its administration is advised in severe cases, even if warranted only by a fair clinical diagnosis, as a pure antidiphtheritic serum is usually entirely harmless, and can be given in conjunction with other remedies. Antiseptic douches are given at frequent intervals, preference being given to solutions of hydrogen peroxide (full strength) for deposits in the vaginal walls and cervix; uterine drainage should be thoroughly established.—*Am. Jour. Obst. and Dis. of Women and Children.*

Department of General Medicine.

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

TETANUS FOLLOWING PARTURITION—Rubeska has collected twenty cases of tetanus after parturition (*Beitrag zum Tetanus Puerperalis*).

The most striking points of this contribution are the following: Nineteen out of the twenty cases ended fatally; in five out of the six personal cases, the bacillus of Nicolaier was found. All his cases succumbed. Two had been treated with antitetanic serum; three had been assisted by the same physician at the clinic. Tetanus had manifested itself in a period varying from the sixth to the nineteenth day after parturition.—*Arch. für Gynäk.*, 1897, Vol. LIV, p. 1.

EARLIEST PHENOMENA IN LOCOMOTOR ATAXIA.—Betchereff points out some earliest symptoms of locomotor ataxia, which are little known.

Coincident with the loss of the patellar and instep reflexes they are:

1. Increase of the abdominal reflex (irritation of abdomen in line of nipples) and of the epigastric reflex (irritating skin of chest in fifth and sixth spaces).

2. Loss of the sense of pain on pressure along the internal popliteal nerve and the external popliteal or peroneal nerve, more so than along the ulnar nerve.

3. No tenderness even on energetic pressure of the arm and calf muscles.—*Revue de Psychiatrie, de Neurologie et de Psychologie Expérimentale*, 1897, No. 9.

FEVER CHOLANGITIS.—In cholelithiasis, in case inflammation of the biliary tract follow the attempt at expelling the calculus, the fever is likely to assume an intermittent type, resembling that of malaria. (Reginald H. Fitz in *American Text-Book, Pract. of Med.*) The fever of catarrhal or suppurative cholangitis often closely resembles intermittent fever, but the presence of hepatic symptoms, of marked jaundice, of a history of gall-stone colic, and of exceedingly severe rigors, enables us to separate them.—*Hare's Pract. Diagnosis*.

ERRORS INCIDENT TO A WELL-KNOWN TEST.—From an exhaustive contribution on the subject of alimentary glycosuria by Drs. Achard and Castaigne, the following notes of practical worth are gathered. In testing for the integrity or capacity of the liver cells by means of the ingestion of sugar (alimentary glycosuria), there are a few considerations which weaken the test as far as it reliably goes in chemical researches.

Two points, at least, are practically of capital importance.

It is impossible to interpret the test of alimentary glycosuria as simply as theory would seem to indicate. For instance, if no sugar is found in the urine after the ingestion of 150 grammes of syrup, it is no proof that the functions of the liver are normal. Indeed, the sugar ingested may not appear in the urine, either because it was not absorbed along the digestive tract or because the kidneys did not allow its elimination; yet the liver may be so altered that it could retain very little, if any at all, of that amount of sugar. It is, therefore, necessary to first test the digestive absorption and the renal perviousness, and this can be done by comparatively simple means, viz.: the use of methylene blue by the mouth (a pill of five centigrammes), and hypodermically (see NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, July, 1897).—*Bull. et Mémoires de la Soc. Med. des Hôpitaux de Paris*, November 25, 1897.

Department of Therapeutics.

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

CHINOPYRIN is the name suggested by Dr. C. G. Santesson (*Deutsche Med. Woch.*) for a combination which is made by mixing three parts of quinin hydrochlorate, two parts of anti-pyrin and six parts of water, the mixture being then warmed. The disagreeable effects of quinin are mitigated by this form of exhibition, says the author; and he has found it particularly suitable for subcutaneous injection in cases where administration per orem was impossible on account of idiosyncrasy, or inadvisable from other causes. Its antipyretic powers, grain for grain, are somewhat less than those of quinin. Repeated injection in the same patient, however, seemed to be precluded by the fact that small sensitive indurations formed at the site of injection. The name quinopyrin has also been suggested for this combination.

AN OINTMENT FOR PRURITUS.—The *Journal de Médecine de Paris* attributes the following formula to Coover:

℞ Yellow oxide of mercury..... 1 part.
Vaselin.....200 parts.

M. The ointment should be applied at bedtime, and also, if necessary, in the morning, by firm and prolonged friction, the affected parts having been previously washed with warm water and soap. It is said to allay the most intense itching.

New York Medical Journal.

TOOTHACHE DROPS.—The following is recommended as a useful formula. Equal parts of carbolic acid crystallized, camphor, chloral hydrate, menthol and glycerin. Pulverize separately the camphor and chloral, mix, and when liquefied, add the menthol, previously triturated, and lastly the carbolic acid and glycerin liquefied together by heat. In packing the tooth cavity with this, none of the fluid should be allowed to ooze over the gums.—*The Practitioner.*

FOR STINGS AND BITES OF INSECTS.—M. Jacquet proposes the following:

℞ Naphthol	10 parts.
Menthol	1 part.
Ether	q. s.
Petrolatum, q. s. to make	100 parts.

Dissolve the naphthol in ether, add the menthol and finally incorporate the solution with the petrolatum.

National Druggist.

SUMBUL ROOT IN HYSTERIA, ETC.—Dr. Goodell's favorite prescription for the tonic treatment of nervous and hysterical woman is as follows.

℞ Extract sumbul	
Ferri sulphat. exsic	aa. gr. xx.
Puly. asafetidæ	grs. xl.
Acid arsenios	gr. ss.
M. Ft. Pilul. No. XX.	
Sig.: One (1) to two (2) pills.	

If a laxative effect is desired, the following is recommended by Dr. Shoemaker as an excellent combination :

℞ Extract sumbul	
Puly. asafetidæ	aa. grs. viii.
Extract nucis vomicæ	gr. i.
Extract cascariæ sagradæ	grs. iv.
Aloin	grs. ii.
Gingerin	grs. ii.
M. Ft. Pilul. No. VIII.	
Sig.: One (1) to two (2) pills.	

Monthly Retrospect Med. and Phar.

GELATIN AS A HEMOSTATIC.—Carnot (*Presse Méd.*) states that a solution of gelatin with a little sodium chloride applied locally acts promptly as a hemostatic, healing by first intention being favored. The solution employed contained 5 per cent. of sodium chloride. It was sterilized before use and brought to the temperature of the body at the time of application. In rectal hemorrhage injections of the gelatin solution proved as efficacious as an external application.

TRIBENZOYL GALLIC ACID.—A preparation under this name has been brought out, which is said to be prepared by agitating an alkaline solution of gallic acid with benzoyl chloride and purifying the resulting product by recrystallization after exhausting with boiling water. The compound appears to remain unchanged by the secretions of the mouth, esophagus and stomach, but in the intestines is readily split up, gallic acid being reformed and exerting its specific properties.—*The Druggists' Circular.*

PAROTIDITIS COMPLICATING INFLUENZA.—In the treatment of a very painful type of parotiditis complicating influenza, Dr. Trouchet, of Rochelle, France, has met with success generally within two days' time by rubbing the following ointment on the affected gland three times a day and applying a cotton wool dressing :

℞ Ichthyol	
Plumbi iodid	aa. grs. xlv.
Ammonii chlorid	grs. xxx.
Adipis.....	ad. ℥i.

The Practitioner.

Miscellaneous.

A CASE OF RIGHT SUBCLAVIAN ANEURISM OF THE THIRD PORTION, CURED BY THE LIGATION OF THE FIRST PORTION AND LATER OF THE AXILLARY.

This brilliant and unique achievement is reported by Mr. H. H. Clutton, M. C., Surgeon and Lecturer on Surgery at St. Thomas' Hospital, London, in volume 80 of the *Medico-Chirurgical Transactions* of 1897.

The profession of New Orleans should feel a special interest in aneurism of the third portion of the subclavian artery, because it is in this city that the first announcement was made to the surgical world of a successful case operated in 1864 by Dr. Andrew W. Smyth. Also here that, for the first and only time, so far, a provisional ligature on the first portion until the divided ends of the third portion of the artery, sectioned by a bullet were secured, was successfully applied by the lamented Albert B. Miles in 1893. Lastly, it was in the Charity Hospital that the first and only much needed dissection of the collateral circulation of those aneurisms was made by our fellow-townsmen, Dr. Edmond Souchon, on the patient of Dr. Smyth, who had finally succumbed after ten years, to the return of his aneurism. The relation was published in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*.

This memorable autopsy showed that after the innominate, the common carotid, the vertebral and the internal mammary had

been effectually ligated the return of the aneurism was due to the anastomosis of the intercostals with the branches of the subscapular. These channels of communication were so numerous, so large and so direct that Dr. Souchon, in his report of the case, at once concluded that if the axillary had been ligated above the subscapular, the patient would have been cured a second time. This logical view was not accepted by the celebrated operator, and there this grave question rested for nearly twenty years.

In an elaborate paper read before the Louisiana State Medical Society by Dr. Souchon in 1895, he reasserts his views, and further states, from an exhaustive study of the modern advances on the ligation of arteries, as demonstrated by Senn and Ballance and Edmunds, that the successful treatment in the future, and freedom from terrific and lethal hemorrhages, will depend upon ligation of the first portion with a double ligature and without rupturing the coats, and that if the pulsations returned, the axillary should then be ligated above the origin of the subscapular.

These advanced precepts are vindicated beyond dispute by the details of the remarkable occurrences in Clutton's case.

The aneurism was on the third portion of the subclavian. A double ligature was first applied on the first portion immediately to the inner side of the anterior scalene. The material used was carefully prepared goldbeaters' skin. Sufficient force was used to completely stop the pulsations in the parts beyond, but no attempt was made to divide the coats. The wound practically healed by first intention.

About six weeks after the operation the pulsations in the aneurism and in the radial could be felt as they did before the operation. It was thought that the ligatures had been prematurely absorbed.

The first portion was religated. In performing this second operation, the artery at the spot where the artery had been previously ligated was easily recognized and was normal in size. The ligature had therefore truly been absorbed before the artery had become obliterated. Had stout catgut or kangaroo tendon been used it is not probable that this result would have taken place. The second ligature was applied to the inner side of the first, between the vertebral and the thyroid axis; it was

also double and the coats were not ruptured; the ligatures this time were of floss silk. The wound healed also practically by primary union.

Upon removing the dressing six days after the second operation the aneurism presented distinct pulsations and a bruit.

The next day the first portion of the axillary was tied immediately below the clavicle with a double floss silk ligature without rupturing the coats. The pulsations diminished considerably, but it was only gradually that they finally disappeared entirely. About two months after the operation the patient returned home. This is the first and only case in which the first portion of the subclavian has been successfully ligated. It is also the first and only one which escaped the usual fatal hemorrhage. This was undoubtedly due to the fact that the coats of the artery had not been ruptured and to successful asepsis.

The operator at the end of his relation of the case remarks: "For any one who is interested in the history of the operative treatment of aneurisms of the third portion of the subclavian artery, there is a very interesting article by Dr. Edmond Souchon, in the *Annals of Surgery* of 1895, Vol. II, pages 545 and 743. Here also the treatment in the future is foreshadowed."

EFFICACY OF THE SERUM TREATMENT OF DIPHTHERIA.—Charles P. B. Clubbe, L. R. C. P. (London), M. R. C. S. (England), in the *British Medical Journal*, says, in reference to cases treated at the diphtheria branch of the Sidney's Children Hospital: "As there is still doubt in the minds of many men (even at this date), both in England and America, as to the efficacy of the serum treatment of diphtheria, it seems to me to be the duty of those who have the opportunity of watching this form of treatment in a special hospital to publish their results. It has been argued that a comparison of results is often valueless because the cases have not been treated in the same place, by the same men, and are not numerically the same. These arguments will not apply to the cases now under review. All these 600 cases have been treated in the same hospital and have been under my care. They have been treated exactly the same way as to food, stimulants, drugs and local applications. They have all been examined bacteriologically. Cases in which the Klebs-Löffler bacilli were

not found are not even included. The only difference in the treatment is that the last 300 had serum injected.

		Cured.	Died.	Death Rate.
Tracheotomies.....	199	64	135	67.8
Simple Diphtheria.....	101	78	23	22.7
Total.....	300	142	158	52.7
Tracheotomies.....	129	80	49	37.9
Simple Diphtheria.....	171	160	11	6.4
Total.....	300	240	60	20.0

“It will be noticed from this table that the total death rate is diminished by 32 per cent., so that in the 300 cases 96 lives may be said to be saved.

“There are 70 fewer tracheotomies in the last series, so that the serum treatment lessens the necessity for operation in 23 per cent. of cases. The death rate in the tracheotomy cases is decreased by 30 per cent.

CONCLUSIONS.—“A reliable antitoxin must be used. It must be given in sufficient quantity. It should be given early in the disease. Given under these condition we may confidently expect a favorable result. Given almost at any period in the disease it lessens the mortality.

“In about 20 per cent. of laryngeal cases, even where there is dyspnea, it obviates the necessity for tracheotomy. The membrane disappears from the throat on or about the third day. No ill effects were noticed in any of these cases, even after the injection of very large quantities (6000 units have occasionally been used).

“Since the above was written another 100 cases (the fourth hundred) have been treated in this hospital with serum; 81 were cured; 19 died.”

POISONING WITH PREPARATIONS OF THE THYROID GLAND—The extract, administered to either man or the lower animals, will occasion very grave symptoms of a toxic nature, symptoms that involve the cerebral, the vaso-motor and digestive functions, and perhaps also the normal action of those ductless glands that throw into the circulation a potent, though unknown substance; and when this administration is pushed even to a moderate degree, death is almost invariably the result, either through the

advent of convulsions, or extensive loss of weight with indications of profound poisoning of the central nervous system, shown by the change in the heart's action and in the respiratory movements. Loss of weight always attended the administration of the tablets, as did disturbances of the circulation in the form of tachycardia and enfeeblement of the cardiac action. Digestive disturbances and slight pyrexia were present in more than half the cases.

A peculiar odorous sweating was noticed with two patients, and increase of the cutaneous transpiration in all.

Irritability and a greater or less degree of mental and motor excitement were remarked in all cases, no matter how depressed or demented they had been previous to the administration.

Two patients became frenzied, and of these, one died before the excitement had subsided, the immediate cause of the excitus being an acute disseminated tuberculosis.

A peculiar gelatinous feel to the integument of the forehead and cheeks, precisely similar to that in myxedema, combined with puffiness of the skin about the malar prominences, was very noticeable in those cases in which the administration of the extract was continued for any length of time.—BERKLEY—*Johns Hopkins Bulletin*.

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.

Manual of Gynecology. By HENRY T. BYFORD, M. D., Professor of Gynecology, etc., in the College of Physicians and Surgeons of Chicago, etc. Second edition, containing 341 illustrations. P. Blakiston, Son & Co., Philadelphia.

This edition is a great improvement on the first. More attention is devoted to the anatomy of the pelvic organ, to chronic

inflammation and subinvolution of the uterus, and to hypertrophy and atrophy of that organ. Attention is given to the use of the cystoscope and to ureteral instruments. Although comparatively short, the present volume is a very acceptable manual of gynecology, and can be safely recommended to the medical student.

MICHINARD.

A Text-book of Practical Therapeutics, with a Special Reference to the Application of Remedial Measures to Disease and Their Employment upon a Rational Basis. By HOBART AMORY HARE, M. D., B. Sc. Lea Brothers & Co., Philadelphia and New York.

Considerable of this, the sixth edition of the work, has been rewritten and only those measures which have proved useful and reliable in therapeutics have been incorporated or allowed to remain. The author states that the work has been so arranged that it can be readily used in conjunction with his Text-book of Practical Diagnosis.

As in the last edition, doses of drugs are given in both apothecaries' and metric weights. We think all authors should follow this plan, as by this means physicians would better acquaint themselves with the more scientific system. The same rule is followed in prescription writing, with some exceptions, probably through oversight.

The author has written or revised all of the work with the exception of the article on Diseases of the Eye, which is by Dr. De Schweinitz; those on Puerperal State by Dr. Hirst, and those on Syphilis and Genito-Urinary Diseases and Antisepsis, by Dr. Martin. Dr. Hare is a most prolific writer, and the work is of special interest as representing his personal views.

STORCK.

A Text-book of the Diseases of Women. By HENRY J. GARRIGUES, A. M., M. D. Containing 335 engravings and colored photos. Second Edition, thoroughly revised. W. B. Saunders, Philadelphia.

Only a short while ago the first edition of this work was issued. Yet there is so much that is new in this edition, especially as regards a sepsis, the surgical treatment of uterine fibroids and cancer, and vaginal section—that the book bears little

resemblance to its predecessor. In every respect it is its superior.

In the appendix there is a short article on intestinal surgery; too short to be useful, and even then it is out of place. Surgery of the intestines or of the breasts should not be considered in a book on gynecology. With this exception the book is well arranged, and full of valuable information. Many of the illustrations are new. It is certainly one of the clearest and most practical works we have to-day on the diseases of women.

MICHINARD.

Handbook of Materia Medica, Pharmacy and Therapeutics. By SAMUEL O. L. POTTER, A. M., M. D., M. R. C. P. Lond. Philadelphia: P. Blakiston, Son & Co.

This, the sixth edition of Dr. Potter's book, is far superior to any of the previous editions. Within 900 pages he has given us what more pretentious works spread over several thousand. His faculty for condensation is unequaled, and the subjects lose none of their value or interest at his hands.

Notice is made of the more recent important drugs. Forty-nine pages are devoted to pharmacy, and these contain much of value. The list of contractions and Latin phrases is the most complete we have seen. Toxins and anti-toxins and animal extracts receive brief but appropriate treatment. The chapter on prescriptions is practically faultless; the subject of incompatibility is carefully considered. We commend the work to the junior practitioner and student, to whom it will prove of inestimable value.

The work well sustains Dr. Potter's reputation as a teacher, and as being one of America's foremost therapeutists.

STORCK.

The Diseases of Women. A Handbook for Students and Practitioners. By J. BLAND SUTTON, F. R. C. S. Eng., etc., and ARTHUR E. GILER, M. D., B. Sc. Lond., etc. With 115 illustrations. W. B. Saunders, Philadelphia.

The first chapter deals so sparingly with the anatomy of the reproductive organs as to be unworthy of comment.

The second chapter deals chiefly with menstruation. On this subject the following is noted: "Probably the simplest way to regard the whole matter (the cause or significance of menstruation) is as follows: The female organism presents a tendency

to an alternation of nutritive and reproductive activity. The alternative has a monthly rhythm. The changes preceding menstruation correspond closely to the early stages in the formation of the decidua of pregnancy. After the menstrual discharge, the uterus begins its preparations anew. Menstruation, therefore, is a missed pregnancy."

This does not explain those pregnancies that occur during a prolonged absence of menstruation, the occurrence of menstruation only during pregnancy (as cited by Tarnier and Cazeaux), ceasing at the termination of pregnancy to recur at the next conception, and those cases of recurring menstruation where both ovaries were undoubtedly removed. To consider menstruation as a "missed pregnancy" is to stretch the imagination too far.

The third chapter describes rather imperfectly or insufficiently the methods of examination. A deal of space is given to the almost useless uterine sound, while very little is devoted to a description of the important *genu-pectoral* and Sims' positions. As a consequence the student obtains but a vague idea of the correct attitude the woman should be made to assume in order to permit the examiner to avail himself of the many advantages of these two positions.

The chapter on Vaginal Infection and Vaginal Secretion contains the views of Döderlein. The chapter on Pessaries, while not as full as it might be, contains some very wise remarks. For example: "Pessaries remain, therefore, indispensable, though they should be used as seldom as possible," etc.

For laceration of the perineum, the Fancourt-Barnes modification of Tait's operation, is recommended. The author says: "There are few operations so simple to perform, but harder to describe or more difficult to comprehend, even from the best description. As a matter of fact, the operation must be witnessed in order to be understood."

The Diseases of the Ovaries and Tubes is well handled, and for so small a book contains much valuable information and advice. Unfortunately, in our own opinion, the treatment of chronic salpingitis is too radically surgical.

While taken as a whole the book is fairly good, in many of its parts it is disappointing. But it deserves careful reading.

MICHINARD.

PUBLICATIONS RECEIVED.

System of Medicine, edited by Thos. C. Allbutt, M. D.—The Macmillan Company, New York and London, 1897.

Manual of Pathology, by W. M. Late Coplin, M. D.—P. Blackiston, Son & Co., Philadelphia, 1897.

Materia Medica for Nurses, by Lavinia L. Dock.—J. P. Putnam's Sons, New York and London, 1897.

Psilosis, by Geo. Thin, M. D.—J. and A. Churchill, London, 1897.

Diseases of the Eye, by Ed. Nettleship, F. R. C. S.—Lea Bros. & Co., Philadelphia and New York, 1897.

Surgical Diagnosis and Treatment, by J. W. Macdonald, M. D. W. B. Saunders, Philadelphia, 1897.

Diseases of the Skin, by Jno. V. Shoemaker, M. D.—D. Appleton & Co., New York, 1897.

Practical Therapeutics, by Hobart A. Hare, M. D.—Lea Bros. & Co., Philadelphia and New York, 1897.

Index Catalogue, Library Surgeon General's Office, Second Series, Vol. II, 1897.

Report of the State Board of Health of Pennsylvania, two volumes, 1896.

Report of the Trustees of the Boston City Hospital, February 1, 1896, to January 31, 1897.

Transactions of the American Orthopedic Association, 1897.

Transactions of the American Dermatological Association, 1897.

Transactions of the American Otological Society, 1897.

Transactions of the American Ophthalmological Society, 1897.

Biennial Report of the Department of Health of Chicago, years 1895 and 1896.

REPRINTS.

Differential Indications in Regard to Choice of Operative Methods in Obstetrics.—Susceptibility of Infants to Tuberculosis.—Congenital Cystic Degeneration of Both Kidneys, by Louis Burckhardt, M. D.

Results from the Administration of Iron in a Readily Assimilated Form After Gynecological Operation, by C. A. Von Ramdohr, M. D.

Cheyne-Stokes Respiration Phenomena.—The Cardio-Vascular and Renal Relations and Manifestations of Gout, by N. S. Davis, Jr., M. D.

Is There Ever a Serious Iritis Without an Involvement of the Ciliary Body, or Choroid, or Both? by Wm. Cheatham, M. D.

A Plea for a Uniform Diastase Test. by C. C. Fite, M. D.

Report of Operations in 1896-97.—Operative Indications in Appendicitis.—Medio Bilateral Lithotomy, by Chas. S. Briggs, M. D.

The Serum Diagnosis of Enteric Fever by the Dried Blood Method, by J. C. DaCosta, Jr., M. D.

Interrupted Respiration.—Case of Double Pulmonic Murmur.—Case of Pulsating Pleurisy.—Phthisis Originating in Colorado.—The Physical Signs of Acute Bronchitis, by J. N. Hall, M. D.

A Case of Injury Producing as the Most Prominent Symptom Luxation of the Eyeball.—Case of Subconjunctival Dislocation of the Crystalline Lens.—Reparation from Extensive Injury, Involving Inner Angle of Eyelids.—Ophthalmic Symptoms Seen in a Case of Fracture of Base of the Skull.—Study of a Case of Epithelioma of the Cornea-Scleral Junction.—Operative Procedures for Cicatricial Ectropion.—Representation of Traumatic Rupture of Vein of the Retina, by Chas. Oliver, A. M., M. D.

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MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.
FOR NOVEMBER, 1897.

CAUSE.	White.....	Colored...	Total
Fever, Malarial (unclassified).....	3	3	6
“ “ Intermittent			
“ “ Remittent			
“ “ Congestive.....	3	1	4
“ “ Typho	3	3	6
“ Yellow	100	5	105
“ Typhoid or Enteric.....	15	4	19
“ Puerperal			
Influenza.....			
Measles			
Diphtheria	1		1
Whooping Cough			
Apoplexy	11	6	17
Congestion of Brain.....	4	3	7
Meningitis	3	1	4
Pneumonia.....	18	6	24
Bronchitis	12	5	17
Cancer.....	14	2	16
Consumption.....	35	35	70
Bright's Disease (Nephritis)	16	10	26
Uremia	2		2
Diarrhea (Enteritis).....	19	5	24
Gastro-Enteritis	2	1	3
Dysentery.....	6	4	10
Hepatitis.....	3		3
Hepatic Cirrhosis	7	1	8
Peritonitis.....	1	1	2
Debility, General	1		1
“ Senile	13	6	19
“ Infantile	4	6	10
Heart, Diseases of	21	15	36
Tetanus, Idiopathic			
“ Traumatic	4	2	6
Trismus Nascentium.....	8	3	11
Injuries	7	5	12
Suicide	2		2
All Other Causes	71	38	109
TOTAL	409	171	580

Still-born Children—White, 26; colored, 20; total, 46.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 25.12; colored, 25.65; total, 25.31.

METEOROLOGICAL SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.19
 Mean temperature..... 64.00
 Total precipitation..... 3.38 inches
 Prevailing direction of wind, southeast.

February, 1898.

*Paullum sepultæ distat inertie
Celata virtus.—HORACE.*

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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FEBRUARY, 1898.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

(Established in 1844.)

EDITORS:

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

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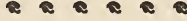
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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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FEBRUARY, 1898.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

THE SERUM DIAGNOSIS OF YELLOW FEVER.*

BY P. E. ARCHINARD, M. D.,

Bacteriologist, Louisiana State Board of Health, Vice President and Professor on Clinical Microscopy, New Orleans Polyclinic; President, Louisiana State Medical Society, etc.;

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Assistant Bacteriologist, Louisiana State Board of Health, New Orleans; Lecturer and Instructor on Clinical Microscopy, New Orleans Polyclinic.

The occurrence of the recent epidemic of 1897 in the South, so soon after the announcement by Sanarelli of his discovery of the specific pathogenic agent of yellow fever, has afforded an inviting field for scientific research in the pathology of this disease. While our work in general has been along the lines laid down by him, we have yet made various departures therefrom, not the least of which has been the application of Widal's method of serum diagnosis to the bacillus *icteroides*.

The unseemly hesitations that have characterized the diagnosis of early, mild and atypical cases of yellow fever by physicians of known repute have imbued us with the importance of proving a specific serum reaction that could be relied upon as a pathognomonic sign of this affection.

The peculiar agglutinative reaction of the blood of an infec-

* Read before the Orleans Parish Medical Society, January 22, 1898.

tious disease with its specific micro-organism may be said to be dependent upon a modification of the blood serum brought about by the existence therein, past or present, of the specific pathogenic agent. Such a specificity has been variously explained. Gruber thought it was due to the presence of substances in the blood, the result of the parasitic activities therein of the micro-organism which he calls "agglutinins," and which he supposed to be a secretion of the white blood corpuscles, having a separate existence from the antitoxic and lysogenic properties of the blood—but it is not the object of this paper to go further into this phase of the subject; neither is it our intention to discuss the history of the evolution of serum diagnosis, nor the question of priority in its discovery.

The agglutinative reaction of the blood has not been confined alone to typhoid fever, having been demonstrated in cholera, colon infection, glanders, etc., but we believe that beyond the mere statement by Sanarelli (*Annales de l'Institut Pasteur*, October, 1897), that it does occur, we are the first to demonstrate its true importance in yellow fever, and its occurrence in a large series of cases. Sanarelli simply states, in his *troisième mémoire*, "that the serum of the blood of cadavers produces plainly in the cultures *in vitro* of the bacillus icteroides the phenomenon of agglutination, but that the intensity of this reaction is very variable."

"That the transuded serum taken from the cavity of the pericardium always has an agglutinative power, more feeble than that of the serum separated from the blood by coagulation; that the serum of convalescents produce agglutination very slowly."

He states further "that the antidiphtheritic serum produces agglutination of the bacillus icteroides very rapidly, while the antityphic serum produces it but partially, and the anticolic and normal serum produce it not at all."

It will thus be seen that with the exception of these meagre statements, our work constitutes a new departure in the study of yellow fever, and places this disease along with typhoid fever as capable of accurate and certain diagnosis, and goes far to prove the specificity of the bacillus icteroides.

The following constitute a series of 100 cases in which the agglutinative test was applied to the bacillus icteroides and controlled by its application to the bacillus typhosus.

The first fifty are taken from typical yellow fever cases at the isolation hospital and from private practice. The blood from the hospital cases was furnished us by Dr. Hamilton P. Jones, resident physician of the yellow fever hospital during our recent outbreak, and we take this opportunity of thanking him for this and many other kindnesses.

The second fifty are cases of suspect blood sent in to the Board of Health laboratory for the application of the Widal test of typhoid fever. These include cases of typhoid fever, malaria and yellow fever.

The blood in the yellow fever cases was taken at various stages of the affection, generally, however, late or during convalescence. Whenever it was taken early in the disease mention is made of the fact.

The Johnston dried blood method on glass slides was followed, and in some cases the slides were kept for two months before the application of the test. In the experiments the dried blood was dissolved in sterile water. The cultures used were bouillon cultures, eighteen hours old, very active, and free from adventitious clumps, foreign bodies, zooglea, etc., that could in any way interfere with results.

The physical agencies—heat, cold, evaporation, contact with foreign bodies, etc., were eliminated:

1. On account of the uniform temperature of the laboratory during the progress of the work.
2. The disregarding of agglutination at edges of drop and around particles of fibrin, etc.
3. The examination of the hanging drop *in vitro*.

The proportion was in the first twenty cases, one of diluted blood to five of bouillon culture (1-5). This was found to be of such concentration that not only the bacillus icteroides, but even the bacillus typhosus was agglutinated.

The proportion used in the succeeding ten cases was 1-5, with bacillus icteroides and bacillus typhosus for diagnosis, controlled by the proportion 1-40 with bacillus icteroides.

Being convinced that the reaction of bacillus typhosus in first thirty cases was due to concentration, in the next twenty cases the proportion was as follows: First 1-10 with bacillus icteroides for purposes of diagnosis, then 1-40 with both bacilli as controls.

A control experiment was made at the beginning of each day's

work by observing, in hanging drop, each culture to notice the motility of the micro-organisms, the freedom from adventitious clumps, the character of the bacilli, etc. Whenever the culture departed from the normal the work was discontinued for that day.

During the progress of this work each reaction was submitted to the inspection of some other member of the laboratory, to whom we take this opportunity of expressing our obligation. All doubtful cases were tried over again.

SERIES OF TWENTY CASES OF YELLOW FEVER (1-5).

Case 1. With bacillus icteroides agglutination, with arrest of motion in 12 minutes, with bacillus typhosus negative.

Case 2. With bacillus icteroides agglutination, with arrest of motion in 12 minutes; with bacillus typhosus agglutination, with arrest of motility in 5 minutes.

Case 3. With bacillus icteroides agglutination, with arrest of motion of agglutinated bacilli in 30 minutes; with bacillus typhosus agglutination, with arrest of motion in 20 minutes.

Case 4. With bacillus icteroides agglutination, with arrest of all motility in 25 minutes; with bacillus typhosus agglutination, with arrest of all motility in 9 minutes.

Case 5. With bacillus icteroides agglutination, with arrest of all motility in 7 minutes; with bacillus typhosus agglutination, with arrest of all motility in 8 minutes.

Case 6. With bacillus icteroides agglutination, with arrest of all motility in 15 minutes; with bacillus typhosus agglutination, with arrest of all motility in 4 minutes.

Case 7. With bacillus icteroides, some agglutination in 45 minutes, no arrest of other bacilli; with bacillus typhosus agglutination, with arrest of motility in 12 minutes.

Case 8. With bacillus icteroides agglutination, with arrest of all motion in 3 minutes; with bacillus typhosus agglutination, with arrest of motility in 5 minutes.

Case 9. With bacillus icteroides negative; with bacillus typhosus, agglutination with arrest of all motility in 15 minutes.

Case 10. With bacillus icteroides agglutination, with partial arrest of motion of other bacilli in 10 minutes; with bacillus typhosus agglutination, with complete arrest of all motility in 10 minutes.

Case 11. With bacillus icteroides, most decided agglutination forming large clumps, with arrest of all motility in 25 minutes, extremely characteristic; with bacillus typhosus agglutination, with arrest of motility in 20 minutes.

Case 12. With bacillus icteroides agglutination, with arrest of the agglutinated bacilli and partial arrest of others in 15 minutes; with bacillus typhosus negative.

Case 13. With bacillus icteroides agglutination well marked, with partial arrest of other bacilli in 7 minutes; with bacillus typhosus agglutination, with arrest of all motility in 4 minutes, very characteristic.

Case 14. With bacillus icteroides, very decided agglutination, with arrest of motion in 6 minutes; with bacillus typhosus very decided, arrest and agglutination in 7 minutes.

Case 15. With bacillus icteroides, very characteristic agglutination, with arrest of motion in 8 minutes; with bacillus typhosus agglutination, with arrest of motion in 7 minutes.

Case 16. With bacillus icteroides, agglutination well marked and characteristic, with death of all bacilli in 5 minutes; with bacillus typhosus agglutination, with arrest of motion in 4 minutes.

Case 17. Blood of relapse, eleventh day, with bacillus icteroides agglutination, with arrest of all motion in 8 minutes; with bacillus typhosus well marked agglutination in 9 minutes, with arrest of all motion in 12 minutes.

Case 18. With bacillus icteroides, well marked agglutination, with arrest of motion in 6 minutes; with bacillus typhosus well marked agglutination, with arrest of motion in 8 minutes.

Case 10. With bacillus icteroides, some agglutination, with arrest of motion in 20 minutes, not characteristic; with bacillus typhosus agglutination well marked and characteristic in 5 minutes.

Case 20. With bacillus icteroides, agglutination, with arrest of motion in 35 minutes; with bacillus typhosus, agglutination, with arrest of motion in 3 minutes.

The following ten cases were tried in the proportion of 1-5 for diagnostic purposes, and if positive, controlled by 1-40, with bacillus icteroides and bacillus typhosus.

Case 21. 1-5, with bacillus icteroides, agglutination well marked in large characteristic clumps, and arrest of motion of

agglutinated bacilli in 3 minutes; with bacillus typhosus agglutinations in large clumps, with arrest of motion of agglutinated bacilli in 12 minutes.

Case 22. 1-5, with bacillus icteroides, agglutination in large clumps, very characteristic in 20 minutes, with arrest of motion; with bacillus typhosus well marked agglutination in large characteristic clumps, with arrest of motion in 22 minutes; 1-40, with bacillus icteroides agglutination, with arrest of motion in 40 minutes, with bacillus typhosus negative.

Case 23. With bacillus icteroides negative, with bacillus typhosus negative.

Case 24. With bacillus icteroides, negative; with bacillus typhosus, negative.

Case 25. 1-5, with bacillus icteroides, negative; with bacillus typhosus well marked agglutination in large characteristic clumps with arrest of motion in 4 minutes.

Case 26. 1-5, with bacillus icteroides, agglutination in large characteristic clumps in 10 minutes, with arrest of motion; with bacillus typhosus agglutination, with arrest of motion in 15 minutes; 1.40, with bacillus icteroides, agglutination with arrest of motion in 55 minutes; with bacillus typhosus, negative.

Case 27. With bacillus icteroides, negative; with bacillus typhosus, negative.

Case 28. Blood of yellow fever taken on second day; with bacillus icteroides 1-10, agglutination well marked in 12 minutes, with complete arrest of all motion in 20 minutes; with bacillus typhosus, negative; 1-40, with bacillus icteroides, agglutination with arrest of motion in 40 minutes.

Case 29. 1-10, blood of yellow fever taken on second day, with bacillus icteroides, agglutination well marked in 10 minutes, with complete arrest of motion in 15 minutes; with bacillus typhosus negative; 1-40, with bacillus icteroides agglutination, with arrest of motion in 35 minutes.

Case 30. 1-10, blood of yellow fever taken second day, with bacillus icteroides, agglutination, with arrest of motion in 3 minutes, with bacillus typhosus negative; 1-40, with bacillus icteroides, agglutination, with arrest of motion in 45 minutes.

The following 20 cases were tried in the proportion 1-10 with bacillus icteroides, then 1-40 with both bacilli.

Case 31. With bacillus icteroides agglutination well marked,

with partial arrest of motion of other bacilli in 10 minutes; 1-40, with bacillus icteroides slight agglutination, with no arrest of other bacilli; with bacillus typhosus negative.

Case 32. With bacillus icteroides agglutination, with arrest of all motility in 10 minutes; 1-40, agglutination with the arrest of all motility in 35 minutes; with bacillus typhosus, 1-30, some slight agglutination, with no arrest of motion of unagglutinated bacteria, not characteristic.

Case 33. With bacillus icteroides 1-10, well marked agglutination in 20 minutes, some motion of other bacilli; 1-40, agglutination well marked, with partial arrest of other bacilli in 40 minutes, with bacillus typhosus negative.

Case 34. With bacillus icteroides, 1-10, agglutination well marked in seven minutes, with arrest of all motility in 20 minutes; 1-40, agglutination in large, well-marked characteristic clumps in 28 minutes, with partial arrest of motion in 45 minutes; with bacillus typhosus, 1-40, negative.

Case 35. 1-10, with bacillus icteroides, well marked agglutination in well-marked clumps in 9 minutes, with partial arrest of other bacilli in 22 minutes; 1-40, well marked agglutination, with partial arrest of motion, in 45 minutes, with bacillus typhosus negative.

Case 36. Blood of yellow fever, convalescent with secondary fever, 1-10, with bacillus icteroides agglutination well marked, with arrest of all motility in 9 minutes; 1-40, with bacillus icteroides beginning agglutination in 20 minutes; well marked in 60 minutes; with bacillus typhosus negative.

Case 37. Blood of convalescent, eighth week, 1-10, with bacillus icteroides, agglutination with complete arrest of all motility in 12 minutes; 1-40, agglutination well marked with arrest of all motility in 20 minutes; with bacillus typhosus, agglutination with arrest of motility in 30 minutes. Patient gave previous history of typhoid.

Case 38. Blood of convalescent with secondary fever; 1-10, with bacillus icteroides, agglutination well marked, with arrest of all motility in 15 minutes; 1-40, with bacillus icteroides arrest of all motion in 65 minutes, but no agglutination; with bacillus typhosus negative.

Case 39. Blood of yellow fever (?) convalescent, 1-10, with bacillus icteroides, no agglutination or arrest of motion in one

hour; 1-10 with bacillus typhosus, agglutination with complete arrest of all motion in 15 minutes.

Case 40. Blood of yellow fever immune suffering from typhoid fever, 1-10 with bacillus icteroides, agglutination with arrest of all motion in 15 minutes; 1-10, with bacillus typhosus agglutination with arrest of all motion in 15 minutes.

Case 41. 1-10, with bacillus icteroides, negative; 1-40, with bacillus typhosus, agglutination with arrest of nearly all motion in 20 minutes.

Case 42. Blood of convalescent (Dr. Callan's case), sixth week, suffering from typhoid fever, fourteenth day, 1-10, with bacillus icteroides, agglutination well marked with arrest of all motility in 10 minutes. Both reactions very characteristic.

Case 43. 1-10, with bacillus icteroides, agglutination, with partial arrest of motion in 20 minutes; 1-40, agglutination, with partial arrest of motion in 40 minutes; with bacillus typhosus, agglutination with partial arrest of motion in 30 minutes. Previous history of typhoid fever.

Case 44. 1-10, with bacillus icteroides, agglutination with arrest of all motion in 12 minutes; 1-40, agglutination with partial arrest of other bacillus in 90 minutes; with bacillus typhosus, negative.

Case 45. 1-10, with bacillus icteroides, agglutination with arrest of all motility in 35 minutes; 1-40, agglutination with partial arrest of motion in 60 minutes; with bacillus typhosus, negative.

Case 46. 1-10, with bacillus icteroides, agglutination with partial arrest of motion in 15 minutes; 1-40, agglutination with motion in 40 minutes; with bacillus typhosus, negative.

Case 47. 1-10, with bacillus icteroides, agglutination with partial arrest of motion in 10 minutes; 1-40, agglutination with partial arrest of motion in 70 minutes; with bacillus typhosus, negative.

Case 48. 1-10, with bacillus icteroides, agglutination with partial arrest of motion in 25 minutes; 1-40, agglutination with partial arrest of motion in 80 minutes; with bacillus typhosus, negative.

Case 49. 1-10, with bacillus icteroides, agglutination well marked, with partial arrest of motion in 20 minutes; 1-40,

agglutination well marked, with arrest of motion in 20 minutes; with bacillus typhosus, negative.

Case 50. With bacillus icteroides, 1-10, agglutination well marked with arrest of nearly all motion in 10 minutes; 1-40, agglutination with complete arrest of motion in 85 minutes, with bacillus typhosus negative.

The following fifty cases are the application of Widal's method to blood of typhoid, malarial and yellow fever suspects occurring in the routine of laboratory work. Proportion for both bacilli was 1-10.

Case 51. Blood of typhoid suspect with history of very recent yellow fever. With bacillus icteroides, some agglutination with partial arrest of motion in 15 minutes; with bacillus typhosus, negative. Probably a secondary fever.

Case 52. Typhoid suspect. With bacillus icteroides, negative. With bacillus typhosus, agglutination with arrest of motion in 5 minutes.

Case 53. Typhoid suspect. With bacillus icteroides, negative. With bacillus typhosus, negative.

Case 54. Blood of typhoid suspect. With bacillus icteroides characteristic agglutinations, with arrest of motion in 9 minutes. With bacillus typhosus also positive reaction obtained.

Case 55. Typhoid and malarial suspect. Plasmodia malarie found. With both bacilli negative reactions were obtained.

Case 56. Typhoid suspect. With bacillus icteroides negative. With bacillus typhosus, positive reaction in 2 minutes.

Case 57. Typhoid suspect. With bacillus icteroides negative. With bacillus typhosus, positive reaction obtained in 10 minutes.

Case 58. Typhoid suspect. With bacillus icteroides negative. With bacillus typhosus positive in 10 minutes.

Case 59. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 60. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 61. Malarial suspect. Agglutination well marked in large clumps, with partial arrest of motion in fifteen minutes; with bacillus typhosus negative.

Case 62. Blood of malarial suspect examined for plasmodia, positive; with both bacilli negative.

Case 63. Blood of malarial suspect examined for plasmodia with negative result; with bacillus agglutination well marked

with arrest of all motion in ten minutes; with bacillus typhosus negative; clinical diagnosis malarial fever of five days' duration; an Italian.

Case 64. Blood malarial suspect. Typical plasmodia observed in hyaline intra-corpuseular form and segmenting rosettes; with both bacilli negative.

Case 65. Blood of typhoid suspect. With bacillus icteroides agglutination well marked; with arrest of all motion in fifteen minutes; with bacillus typhosus agglutination with arrest of motion in fifteen minutes.

Case 66. Blood of typhoid suspect. With bacillus icteroides some agglutination without arrest of motion of other bacilli in forty minutes; with bacillus typhosus agglutination well marked, with arrest of all motion in five minutes.

Case 67. Typhoid suspect. With bacillus icteroides arrest of all motion without agglutination in fifteen minutes; with bacillus typhosus positive in ten minutes.

Case 68. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive in ten minutes.

Case 69. Malarial suspect. Examination for plasmodia positive, with both bacilli negative.

Case 70. Blood of typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive in fifteen minutes.

Case 71. Blood of typhoid suspect. With history of yellow fever in 1878; with bacillus icteroides positive in fifteen minutes; with bacillus typhosus positive in fifteen minutes.

Case 72. Typhoid suspect. With bacillus icteroides; some agglutination with partial arrest of motion in thirty minutes; with bacillus typhosus positive in fifteen minutes.

Case 73. Typhoid suspect, negative with both bacilli.

Case 74. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive in fifteen minutes.

Case 75. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive in fifteen minutes.

Case 76. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive in fifteen minutes.

Case 77. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 78. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 79. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 80. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 81. Blood of malarial suspect examined for plasmodia, negative. With both bacilli negative.

Case 82. Typhoid suspect. With bacillus icteroides negative; bacillus typhosus positive.

Case 83. Typhoid suspect. With bacillus icteroides negative; bacillus typhosus positive.

Case 84. Typhoid suspect. With bacillus icteroides negative; bacillus typhosus positive.

Case 85. Typhoid suspect, fourteenth day, with history of typical yellow fever six weeks previously. With bacillus icteroides agglutination with arrest of all motility in 15 minutes; with bacillus typhosus agglutination with arrest of all motility in 10 minutes.

Case 86. Blood of malarial suspect. No plasmodia found. Negative to both bacilli.

Case 87. Blood of malarial suspect. With bacillus icteroides, some agglutination with partial arrest of motility in 15 minutes; with bacillus typhosus negative. No plasmodium found.

Case 88. Typhoid suspect. With bacillus icteroides negative; bacillus typhosus positive.

Case 89. Typhoid suspect. With bacillus icteroides negative; with bacillus typhosus positive.

Case 90. Malarial suspect. Plasmodia found. Negative to both bacilli.

Case 91. Uncertain etiology. With bacillus icteroides, negative; with bacillus typhosus, positive in 20 minutes.

Case 92. Typhoid suspect. With bacillus icteroides, negative; bacillus typhosus, positive.

Case 93. Malarial suspect, no plasmodia present. With bacillus icteroides agglutination well marked with partial arrest of motion in 20 minutes; with bacillus typhosus, negative; 10 days' continued fever.

Case 94. Malarial suspect; sixth day with bacillus icteroides, agglutination well marked with partial arrest of motion in 15 minutes; with bacillus typhosus, negative. No plasmodia present.

Case 95. Typhoid suspect. With bacillus icteroides negative; bacillus typhosus, positive.

Case 96. Typhoid suspect. With bacillus icteroides negative; bacillus typhosus, positive.

Case 97. Typhoid suspect. With bacillus icteroides, negative; bacillus typhosus, positive.

Case 98. Blood of a yellow fever suspect, taken second day, agglutination well marked in 12 minutes, with complete arrest of all motion in 20 minutes; with bacillus typhosus negative.

Case 99. Blood of yellow fever suspect, blood taken second day. With bacillus icteroides agglutination well marked in 10 minutes with complete arrest of all motion in 15 minutes; with bacillus typhosus, negative.

Case 100. Blood of yellow fever suspect, blood taken second day, examined for plasmodium malariae, negative. With bacillus icteroides, agglutination with arrest of all motion in 3 minutes; 1-40 agglutination with partial arrest of motion in 8 minutes and complete in 45 minutes; with bacillus typhosus, negative.

In the course of our experiments we have observed that normal blood possesses some agglutinative power when used in concentration, but this factor can be easily eliminated by resorting to higher dilutions, also that yellow fever blood in the proportion of 1-5 will cause agglutination of the bacillus typhosus, but in our subsequent work we eliminated this fact by higher dilution.

The agglutinative reaction was obtained with bacillus typhosus in 90 per cent. of the first twenty cases wherein a proportion of 1-5 was used, but this was thought to be due to the normal agglutinative power of the blood, in that concentration, rather than to a specific agglutinative modification of its serum.

It also occurred occasionally in cases where higher dilutions were used, but these were probably cases of typhoid immunity from a pre-existing attack of this disease.

In cases 23, 39, 41, with proportion 1-10, no agglutination occurred with bacillus icteroides, whereas it occurred promptly and characteristically with bacillus typhosus. These cases were probably cases of typhoid fever.

In cases 34, 37, 43 both bacilli reacted toward the sera. In two of these cases there was a history of pre-existing typhoid, in the third no history was obtainable.

In cases 65, 72, 71, 86, sent to the laboratory for serum diagnosis, with histories of previous yellow fever, the reaction was obtained with both bacilli.

These cases prove the coexistence of two specific "agglutinins" in the blood at the same time.

In cases 51, 54, 61, 63, 89, 93, cases of typhoid and malarial suspects sent to laboratory for serum diagnosis, the reaction was only obtained with bacillus icteroides and are believed to have been cases of fellow fever.

Case 51 had a history of very recent yellow fever and was probably a relapse or a case of intercurrent septicemia.

Case 54 was a typhoid suspect in which the attending physician admitted the probable diagnosis of yellow fever.

Cases 61, 63, 88, 93 were cases sent in as malarial suspects, but with a suspicion of yellow fever. No plasmodia malarie were found in any of them. These cases are believed to have been yellow fever.

Cases 55, 62, 69, 81, 90, cases of malarial suspects, which proved to be such, but gave no reaction with either bacillus serving as control, plasmodia being found in all.

Finally, toward the end of the work as our results were becoming known, cases of yellow fever suspects were sent in for serum diagnosis. Cases 98, 99, 100 with typical symptomatology, blood taken on second day in each gave prompt and characteristic reaction with bacillus icteroides and negative with bacillus typhosus.

Case 20 is believed to have been a case of typhoid fever from the promptness of its reaction with bacillus typhosus, yet in the proportion of 1-5, it gives a reaction with bacillus icteroides in 35 minutes, showing that concentrated typhoid serum has a slight agglutinative action on bacillus icteroides.

Cases 28, 29, 30 determine the earliest time at which the reaction may be obtained—*i. e.*, second day each.

The following cases determine the length of time that the blood may retain its agglutinative property:

Case 37, eight weeks.

Case 42, six weeks.

Some of the specimens of yellow fever blood collected on

glass slides retained their agglutinative property for more than three months.

The bacillus icteroides responds to the usual physical agencies, as is the case with bacillus typhosus; such as exposure to atmosphere, evaporation, contact with cover slips at edges of drop, heat, cold, foreign bodies, etc., all of which are easily excluded by experience.

The question of heat and cold did not enter materially in our experiments, the laboratory temperature remaining uniformly about 65 or 70 deg. F.

Experience taught us that cultures of bacillus icteroides thirty-six hours old were preferable, the bacillus being a slowly growing organism, and at that age very active and sufficiently abundant.

Cessation of motion as well as agglutination were made the criteria of the reaction, and in proportion 1-10, 30 minutes was considered the limit for positive diagnosis.

From the above series it will be seen that in the fifty cases of yellow fever, agglutination with cessation of motion was obtained in over 70 per cent. of cases, the reaction being as characteristic as in typhoid fever cases.

The work was done with a culture of the bacillus icteroides of Sanarelli obtained from the Pasteur Institute, but the reaction was more pronounced and characteristic when our local cultures were used.

FROM THE ABOVE WE CONCLUDE AS FOLLOWS:

1. Our work demonstrates the practical value of serum diagnosis in yellow fever.

2. That it may be utilized as early as the second day, and be exceptionally present as late as nineteen years after the disease.

3. That a dilution of 1-40 with a time limit of one hour is to be preferred for accuracy of diagnosis.

4. That the dried blood method of Wyatt Johnston is perfectly satisfactory.

5. That the serum diagnosis of yellow fever should be instituted in all countries wherein the disease may exist endemically, or which may be occasionally visited by epidemics.

6. That it is especially valuable at the beginning of epidemics in the diagnosis of early and doubtful cases.

TABLE I.*

Cases.	Bacillus Icteroides.			Bacillus Typhosus.			Remarks.
	Positive.	Negative.	Doubtful.	Positive.	Negative.	Doubtful.	
1	1				1		
2	1			1			
3	1			1			
4	1			1			
5	1			1			
6	1			1			
7		1		1			
8	1			1			
9		1		1			
10	1			1			
11	1			1			Very characteristic for b. icteroides.
12	1			1			
13	1			1			Very characteristic for b. typhosus.
14	1			1			Very decided for both bacilli.
15	1			1			Characteristic for b. icteroides.
16	1			1			Well marked for b. icteroides.
17	1			1			
18	1			1			
19	1			1			
20			1	1			Reaction slow for b. icteroides.
21	1			1			Characteristic for both bacilli.
22	1			1			Characteristic for both.
23		1			1		
24		1				1	
25		1		1			Characteristic for b. typhosus.
26	1			1			
27		1			1		
28	1				1		Blood taken on second day.
29	1				1		Blood taken on second day.
30	1				1		Blood taken on second day.
31	1				1		
32	1					1	Reaction with b. typh., not characteristic.
33	1				1		Well marked.
34	1				1		Very characteristic.
35	1				1		Well marked.
36	1				1		Blood of secondary fever.
37	1			1			Blood taken third week, previous typhoid.
38	1				1		Secondary fever.
39		1		1			Well marked for b. typhosus.
40	1			1			Yellow fever 1878, typhoid fever 1897.
41		1		1			
42	1			1			6th week yellow fever, 14th day typhoid.
43	1			1			Previous history of typhoid fever.
44	1				1		
45	1				1		
46	1				1		
47	1				1		
48	1				1		
49	1				1		
50	1				1		
41	8	1		29	19	2	

* Table I shows the reaction of blood serum of yellow fever cases with the bacillus icteroides and the bacillus typhosus. In Nos. 1-20 the proportion used was 1-5; in Nos. 21 to 30 the proportion used was 1-5, with bacillus icteroides for diagnostic purposes, and if positive, controlled by 1-40 with both bacilli. In Nos. 31-50 the proportion used was 1-10 with bacillus icteroides, and 1-40 with both.

TABLE II.*

Cases.	Bacillus Icteroides.			Bacillus Typhosus.			Plasmodium.	Remarks.
	Positive.	Negative.	Doubtful.	Positive.	Negative.	Doubtful.		
51	1				1			History of recent yellow fever.
52		1		1				
53		1			1			Negative for both.
54	1			1				
55		1			1		1	
56		1		1				
57		1		1				
58		1		1				
59		1		1				
60		1		1				
61		1			1		1	Clinical diagnosis malarial fever.
62		1			1		1	Malarial suspect.
63	1				1		None	Malarial suspect.
64		1			1		1	Malarial suspect.
65	1			1				
66			1	1				
67			1	1				
68		1		1				
69		1			1		1	Malarial suspect.
70		1		1				[fever immune.
71	1			1				Typhoid suspect. Yellow
72			1	1				
73		1			1			Not examined for plasmodia.
74		1		1				
75		1		1				
76		1		1				
77		1		1				
78		1		1				
79		1		1				
80		1		1				
81		1			1		None	Malarial suspect.
82		1		1				
83		1		1				
84		1		1				
85		1		1				[fever immune.
86	1			1				Typhoid suspect. Yellow
87		1			1		None	Malarial suspect.
88			1		1		None	Malarial suspect.
89		1		1				
90		1		1			1	Malarial suspect.
91		1		1				
92		1		1				
93	1				1		None	Malarial suspect.
94	1				1		None	Malarial suspect.
95		1		1				
96		1		1				
97		1		1				
98	1				1			Yellow fever suspect.
99	1				1			Yellow fever suspect.
100	1				1		None	Yellow fever suspect.
	11	35	4	32	18		6	

*Table II consists of a series of 50 cases of blood from cases of typhoid, yellow fever and malaria suspects sent to the laboratory for diagnostic purposes. In all a proportion of 1-10 was used with each bacillus.

THE USE OF THE OBSTETRIC FORCEPS AND THE RULES
REGULATING ITS APPLICATION.*

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For the proper appreciation of the rules regulating the use and application of forceps we should study those causes that create a demand for it, those conditions that permit its application with safety, and the dangers attending its use and the harm resulting as a consequence of its non-use.

DANGERS TO THE FETUS.—There is no denying that the forceps has been the cause of death of the fetus even when applied by the most skilful. Such, however, is chiefly true when the instrument had been applied at the inlet. But the greatest percentage of death is due to ignorance of the conditions existing at the time of application, to unskilful adjustment and use.

It is almost impossible to estimate the percentage of fetal deaths occasioned by the forceps. We may ascertain the fatalities occurring in public institutions, but can we ever know their extent in domiciliary practice? Deaths due to fracture of the skull, to cerebral and meningeal hemorrhage, have been recorded. Facial paralysis has been a rather frequent accident; a few cases of paralysis, due to injury of the brachial plexus, and rupture of the sterno-cleido-mastoid muscle have been observed.

The unskilful use of the forceps has been the cause of conditions more deplorable than death. Recently Winkler and Ballan found marks of pressure forceps on both sides of the cranium of six idiots in twenty-five that they examined; they found cerebral atrophy in one case in which forceps was used. Davide Beck found atrophy of the optic papilla caused by forceps. Fletcher Beach also found a number of idiots whose condition was due to forceps. The same may be said, but to a less extent, of epilepsy. Some time ago, while reading on epilepsy, I was astonished at finding the following by L. Putzel: "The powerful influence of heredity is also shown by the

* Read before the Orleans Parish Medical Society.

fact that guinea-pigs, which have been rendered epileptic by experimental means, may transmit the disease to their offspring."

Frequently an apparently trivial injury to the skull is treated too lightly by the attendant. A recent writer on the surgery of the skull said: "No injury to the skull is too slight to be despised," and to substantiate such an opinion, he reported several remote disastrous results following so-called "slight injuries."

Should not a calm consideration of such lamentable possibilities create in us all an ambition to acquire a better understanding of a proper use of a means intended solely for good?

DANGERS TO THE WOMAN.—From the use of the forceps there have resulted lacerations of the cervix, perineum, rectum, vaginal walls and uterus; at times its use has been followed by septicemia and death. It is interesting to observe, however, that these accidents become fewer as one's skill becomes greater. The more one has recourse to the forceps, the more he gives it his close attention, the more he appreciates its difficulties. And as this appreciation grows upon him the less he has to regret calling this means to his aid, because careful study has made him possessor of an ability that permits him to overcome obstacles and annoyances that to the less careful are unseen and insurmountable.

NON-USE OF FORCEPS.

Dangers to the Woman.—With all that has been said against the unskilful use of the forceps, we find that its non-use in prolonged labor is productive of as much, if not greater, harm. Unassisted prolonged labor causes increased suffering, inflammation and sloughing of the soft parts, vagino-vesical and recto-vaginal fistulæ, temporary or prolonged paralysis, owing to continued pressure on the sacral nerves, maternal and uterine exhaustion, hemorrhage, septicemia and death. As an illustration of the hurtful effects of tedious labor, I will quote the following, rather recently compiled, table of 5640 labors: "In 5640 labors finished in six hours, one woman died in every 470 cases; in 4489 labors completed in seven to twelve hours, one in every 214 died; in 1745 finished in thirteen to twenty-four

hours, one in every 145 died; in 163 finished in twenty-five to thirty-six hours, one in 45 died; in eighty-four labors completed in thirty-six hours or more, one in 12 died."

To the Fetus.—To the fetus prolonged labor has been extremely disastrous, and it is more than probable that accidents occasionally attributed to the forceps were really the consequence of its too tardy application. We find that among the effects of prolonged labor is fracture of the skull. Dr. Taylor, in his work on Medical Jurisprudence, says that fracture of the skull produced by uterine contraction has been of sufficiently frequent occurrence to establish it as a fact. Generally the fracture is caused by violent compression as the head passes the mouth of the wound. The frontal and parietal bones are chiefly implicated in the accident. "They commonly amount merely to *fissures* in the bones, beginning at the suture and extending downward for about an inch or less into the body of the bones." This character of the break distinguishes such an accident from a fracture due to forceps and from child murder. Fatal effusion of blood into the brain or its meninges is another consequence of prolonged labor. Death also results from prolonged labor, owing to the effect on the placenta by long continued and frequently repeated uterine contractions—the fatality being independent of cranial compression.

The following table will illustrate the fetal mortality attending prolonged labor: "In 5640 children delivered in six hours, one in 207 were dead; in 4489 born in seven to twelve hours, one in 159 was still-born; in 1754 delivered in thirteen to twenty-four hours, one in fifty-five was dead; in 247 born after twenty-four hours' labor, one in every five was dead."

While idiocy has been caused by improper use of forceps this condition, according to Fletcher Beach, has to a much greater extent been due to unassisted prolonged labor. He reports that out of 810 cases of idiocy, thirty-five (4.3 per cent.) were due to forceps, while 216 (26.6 per cent.) were the consequence of tedious labor.

INDICATIONS.

The forceps should be considered the friend of the woman and of the fetus. Whenever the welfare of either or both requires

speedy termination of labor, then should the forceps be had recourse to. I do not think that we should wait until death of either is threatened. Its service is required in convulsions, hemorrhage, feebleness due to cardiac or pulmonary disease, prolapse of the cord when the head is engaged at or is below the brim, dystocia due either to pelvic or perineal resistance, and, finally, to exceptional cases of breech. When there is a family history of idiocy or epilepsy I apply forceps at the slightest indication of pelvic compression of the head.

We should bear in mind that forceps' application is extremely dangerous when the antero-posterior diameter of the inlet is less than than three and one-quarter inches.

When the woman has been weakened to an alarming extent by tedious labor, and the probabilities are that prolonged and strong traction will be required to deliver a fetus, whose feebleness is already so great that its delivery alive is doubtful, I should prefer craniotomy, because under such circumstances we will, at best, deliver a dead child, and the prolonged traumatism of the already weakened woman will more likely result in her death.

About the most frequent condition in which I have thought it necessary to apply the forceps is that wherein the os having been fully dilated and the sac ruptured, the head remains at a fixed point within the excavation, firmly compressed by the surrounding pelvic tissues, and not making any progress although the uterin expulsive acts are strong. In such a case I never wait longer than two hours, because further delay entails unnecessary risk to the woman and fetus. Secondly, the proper application of forceps here is simple and less dangerous than delay. Under such conditions very little traction is required to draw the head beyond the cause of delay, and labor is generally terminated quickly without further artificial aid.

Although the forceps has, by many, been used to change an occipito-posterior for an occipito-anterior, I have never found such procedure necessary.

APPLICATION.—We now come to a consideration of the application of forceps. I will only deal with the general principles of this question, leaving the matter of detail to the many excellent text-books that are within easy reach.

The first and most important point to be discussed is that which refers to the method of applying the blades. Shall they be applied directly to the child's head, or indirectly to the sides of the woman's pelvis? There is probably no question in obstetrics that is in such an unsettled state. A few years ago Dr. Henry Fry, of Washington, D. C., wrote to eighty-one physicians in this country for their views on the subject, with the following results:

“ Fifty-one per cent. of the operators stated they applied the blades to the sides of the child's head. Among these may be mentioned the names of Lusk, Parvin, Goodell, Edward Warren Sawyer, W. H. Wathen, Robert Battey, Partridge, Matthew Mann, Gehrung and Engelman. Thirty-five per cent. disregarded the position of the head and applied the blade to the sides of the woman's pelvis. The advocates of this method include the names of W. M. Polk, Paul Mundé, Grandin, Currier, Ramdohr, H. C. Coe, A. F. A. King and C. P. Clark. Finally, 11 per cent. recognized no rule and followed either method.”

The importance of the point rests on the comparative safety of the two methods. Does the one require less exertion of force, and is it attended with less risk to the child than the other? To my mind and in my experience the direct method, where possible, is certainly the better. With the head in the excavation, the direct method is comparatively easy, whether with straight or curved forceps. But it is altogether a different matter when the head is at the inlet and in transverse or oblique position. This difficulty is sometimes insurmountable.

The dangers attending the indirect method are those to the mother from the greater force required to draw down the head, and to the child from the occipito-frontal grasp of the forceps. Were it not for these dangers, especially the latter, I believe the indirect method would be generally adopted because it is less difficult. When the blades are applied directly to the head rotation and descent are more easily accomplished. Many good teachers, like Goodell and Parvin, first attempt the direct method with forceps having both curves; failing in this, they have recourse to that having but one curve—like the Simp-

son—applying it to the side of the woman's pelvis. That, I believe, to be the most reasonable plan to pursue.

Most instruments with a double curve have more compressing power than those with a single curve, as will be seen by the following: Davis' forceps measures between the blades $2\frac{1}{4}$ inches, Hodge's $2\frac{1}{2}$ inches, Simpson's 3 inches.

An important point to remember is that which Dr. Lepage has recently called attention to, and that is, that the head should be grasped within the blades, so that its *mobility* is not lost. This desideratum is obtained with Tarnier's axis-traction forceps, for the traction is independent of the handles and the head is free to perform movements of flexion and extension. When applied to the head the posterior blade should, if possible, be applied first and the concavity of their margins should be directed towards that part of the head which is to be brought under the symphysis-pubis, as recommended by Cazeaux, Tarnier and others. This, of course, refers to head in transverse or oblique.

In face presentation, descent of the head having occurred, it is imperative that the blade be applied directly to the head; "departure from this rule, as, for example, applying one blade in the trachelo-bregmatic diameter would give an insecure hold, and probably do irreparable mischief to the child's throat" (Parvin). In transverse presentation, "the forceps—the posterior blade having been introduced first—should be applied in an oblique diameter, with the concave edges of the blades directed toward the chin." My experience with face presentation high up is that a dose of "tincture of time" or podalic version is preferable to the use of forceps. Tarnier has truly said that many apparently unpromising cases correct themselves unassisted, or are made worse with forceps.

To the breech the forceps has occasionally been successfully applied. The best instrument for such purpose is Tarnier's axis-traction forceps. To apply forceps in this presentation the breech should be low and rotation should have taken place. "One blade should be over the sacrum and the other over the posterior surface of the thigh." The blade should never embrace the trochanters, or overlap the iliac crests. If the hips are in the transverse the blade should be applied to the lateral surfaces of the thighs.

RULES FOR USE.

In the first place there must exist the necessity of its use. There must not be at either inlet, excavation or outlet an insurmountable obstacle. The membranes must be ruptured. The os must be fully dilated or dilatable. Still, under urgent circumstances, the cervix may be split to admit the blades. The bladder and bowels should be emptied. The position of the presenting part must be ascertained. The hap-hazard, "catch-as-catch can" manner of applying forceps will often result in injury. One can not appreciate progress obtained by the instrument unless there be a correct knowledge of what existed prior to its application.

It should be borne in mind that the forceps is not a compressor. The pressure exerted against the blade by the maternal parts generally produces sufficient compression against the head to prevent slipping, if the blades have been properly applied. In my opinion, it were better that the blades slip than that much compression be used. Again, compression of the head will destroy that elasticity and convexity which are indispensable for the prevention of slipping of the blades. Hence, whether the fetus be dead or alive, nothing is gained by strong compression with the obstetric forceps. A Russian writer (Dr. Lavarewitch) very cleverly divides the blade into two parts, the *grasping* part and the *directing* part. "The grasping part," he says, "is the half from the tip to the middle of the blade, or equal to half of the arc of the blade. From where this part ends to near where the shank begins is the *directing* part." The directing part of the blade directs the handle as the head rotates or descends, and this directing influence may be interfered with if the blade be fixed by too much compression.

TRACTION—AMOUNT AND DIRECTION.

As much as possible, traction should be made with the forearms, and not with the entire body. Should the blades slip when the latter force is used, accidents are likely to occur to the woman, child or *accoucheur*. Until the floor of the pelvis has been reached by the head, the direction of traction should be directly downward and backward; when this has been reached the traction should be forward, until she advances a little further, when the direction

should be directly upward and forward. A study of the investigations of Fabri, Sabatier, Pinard, Broissard, Tarnier and Rutherford is rather convincing that the axis of the obstetric pelvis does not describe a parabolic curve. Hence the foregoing direction. The movements are greatly facilitated by the use of forceps having the Tarnier system of axis-traction. With this instrument, traction is made with the traction rod, the handles not being touched at all. The handles are merely indicators of the direction in which to draw. And it is wonderful how well they do their work! The traction rod should be held parallel to the handle and about one-quarter inch away—not jammed up against them.

I always use intermittent traction, unless it be a matter of life or death of either woman or child, examining from time to time to ascertain the extent of progress made, increasing or diminishing the force as required. I frequently remove the instrument to learn whether labor will not be easily terminated without further aid or to reapply the blades in a more favorable position.

In conclusion, I would say that the injuries frequently attributed to forceps are either the result of too tardy use or to an unskilful application or manipulation. I am a friend of the forceps. With a correct appreciation of its use and application, and a proper acquaintance with all that appertains to obstetrics, and with a perfect aseptic and antiseptic technique, I do not see why its assistance should not be availed of with greatest security to mother and child.

SUPPURATIVE FRONTAL SINUSITIS—ITS RADICAL TREATMENT BY THE METHOD OF OGSTON AND LUC.

BY GORDON KING, M. D., SENIOR RESIDENT SURGEON, EYE, EAR, NOSE AND THROAT HOSPITAL, NEW ORLEANS, LA.

Frontal sinusitis, especially in its chronic purulent and mucopurulent forms, by reason of its obstinate resistance to the ordinary methods of treatment and of the obstacles offered by its anatomical situation to its thorough treatment by the endonasal route, has proven to be one of the most unsatisfactory diseases that fall to the lot of the rhinologist to treat. The various

methods that have been employed to overcome its chronic persistence, and the many antiseptics and astringents that have each in their turn been employed, in the form of injections or applications, have all given but indifferent results; so that, at the present day, we may consider the affection as belonging to that category of diseases which require the adoption of radical surgical measures for their permanent eradication. More than twenty years ago radical operations were performed upon the frontal sinus, but at that time, and until recent years, the external opening of the sinus was reserved for those cases having fistulous tracts opening externally, or where the pressure of tumors or other morbid conditions specially demanded the procedure. Of late years the external operation has been gaining favor over the less radical, and, we may say, more risky procedure of perforation and curettage of the cavity through the endo-nasal route. This has for a long time been a subject of more or less lively discussion, but recently it has been given a fresh impetus by the publication of a communication, tendered by Doctor Luc, of Paris, to the *Société Française de Laryngologie, de Rhinologie et d'Otologie*, at its annual congress in the month of May, 1896, in which the author described the technique of an operative procedure for the radical cure of empyema of the frontal sinus, which, though following the old method of opening externally and drainage by the nasal route, presented some most important modifications. During the following year the operation was performed by a number of the author's confrères, and at the last meeting of the society the subject was again brought up and discussed, and the method received flattering commendations from those who had had occasion to test its merits.

A few unsuccessful results were reported and in the course of the discussion several modifications in the details were suggested.

The method, the operative technique of which will be described in detail below, has for its essential principles the free exposure of the sinus by an opening made in its anterior wall, thorough curettage of the interior, free drainage by a large nasal communication and immediate closure of the external wound.

It appears that this operation in its essential features was extolled in the year 1884 by Dr. Alexander Ogston, of Aberdeen,

Scotland, but it did not at that time receive the patronage of the profession at large, and the interest was only revived last year when Dr. Luc, unaware, at the time, of the former treatment of the subject by Ogston, first exposed his method of operating and demonstrated the favorable results obtained thereby in a series of cases upon which he had operated.

Before dwelling on the details of the operation let us consider first the means by which we may arrive most readily at a positive diagnosis of suppurative disease of the frontal sinus, differentiate it from affections of the other accessory cavities, and recognize the indications for the adoption of active surgical measures.

In the majority of cases little difficulty is experienced in making a diagnosis, the chain of symptoms being clearly recognizable and so unmistakable in their character as to leave little room for doubt. There are other cases, however, that present such ill-defined and deceptive symptoms that the means at our command for differentiating and localizing the seat of the disease must be brought into play before operative measures can be considered justifiable.

Patients affected with frontal sinusitis come to us complaining usually of headache or of neuralgic pains, referred to the frontal or supraorbital region. It is generally constant, but may become intermittent in character, and at times is of an intensity exceedingly distressing. This pain may be present in all cases of sinusitis, and is of the same character, location and intensity when the maxillary or sphenoidal sinuses or the ethmoidal cells are affected as when the frontal sinus alone is involved. Neuralgic pain, therefore, in the region of the frontal sinuses, can not be construed as indicative of frontal sinus disease particularly, but rather is evidence in favor of disease of one of the sinuses, which may be the frontal sinus. Tenderness on pressure, however, in the supraorbital region, accompanied by the neuralgic pain, whether associated or not with tumefaction, is strong proof of frontal sinus involvement.

The pain and tenderness, when the result of frontal sinusitis, is attributed to accumulation of pus in the cavity (Bosworth), which, through obstruction of the infundibulum, either from inflammatory swelling of the mucosa or from the presence of tumors or fungus granulations, gives rise to considerable pres-

sure within the cavity, and not uncommonly causes the objective symptom of bulging of the orbital contents or of the supraorbital region. The pus often, in old cases, breaks through the thin orbital plate, and forms an abscess or a fistulous tract beneath the orbital arch.

The cerebral symptoms due to pressure upon the brain from distention of the inner wall of the cavity are but vaguely defined and of little practical value in establishing a diagnosis. Perforation of this thin inner wall may occur, and the characteristic symptoms of acute meningitis or cerebral abscess supervene. Amaurosis and diplopia have been known to occur where there was displacement of the eyeball. It has been claimed that direct percussion over the sinuses gives some evidence of their condition, but one can easily imagine that such skill would be required to distinguish the difference in resonance of pitch of a percussion note over the frontal sinus as to render this means of diagnosis unreasonable and impracticable.

When escape of the pus takes place through the nasal cavity or through a fistulous tract the subjective symptoms of headache or tenderness are not so prominent. Discharge from the nose of thick, yellow, creamy pus is almost constantly experienced and is only entirely absent when there is occlusion of the fronto-nasal canal. Rhinoscopic examination shows this pus to come from the middle meatus, which in the majority of chronic cases contains either a mass of polypoid granulations or folds of hypertrophied and degenerated mucosa covering the middle turbinated bone, which sometimes completely fill the meatus. If, when this morbid tissue is removed, pus is still seen to exude from the middle meatus and the region of the infundibulum we have almost conclusive evidence of infection of one or more of the nasal accessory cavities.

The question then presents itself to determine which of these gives rise to the purulent discharge, and with the various means that are at our disposal at the present day for the exploration and transillumination of these cavities we may readily arrive at positive conclusions as to the seat of the morbid process. When upon examination of the nasal cavity pus is seen in the middle meatus or on the middle turbinated bone it should be carefully removed with a cotton-tipped applicator, and if it does not reappear at once to disclose its point of origin, the

patient should be made to sit for a few minutes with the head bowed upon the knees. Reappearance of the pus in the meatus after a few moments adds another link to the chain of evidence and points to the maxillary sinus as the source of the discharge. The flow of pus from the other sinuses is favored by the upright position, that from the frontal sinus and anterior ethmoidal cells usually flowing forward over the anterior extremity of the middle turbinated bone and from the sphenoidal sinus back into the naso-pharynx. There is no fixed rule for this, however, which depends upon the conformation of the nasal cavity and the presence or absence of neoplasms diverting the natural tendency above described.

Some patients do not complain of a discharge from the nose, but of a constant expectoration of pus which falls into the throat from the nasopharynx. I had the occasion to observe a case of this kind quite recently at the clinic of Dr. Moure in Bordeaux, in which case the left maxillary sinus was found to contain pus. There was no discharge whatever from the nose anteriorly, but a constant expectoration of the characteristic creamy pus, which found its way from the middle meatus back into the pharynx.

Transillumination of the maxillary sinus can be practised either by means of the Heryng's lamp, or better with the lamp constructed recently for that purpose by Dr. Escat, of Toulouse.

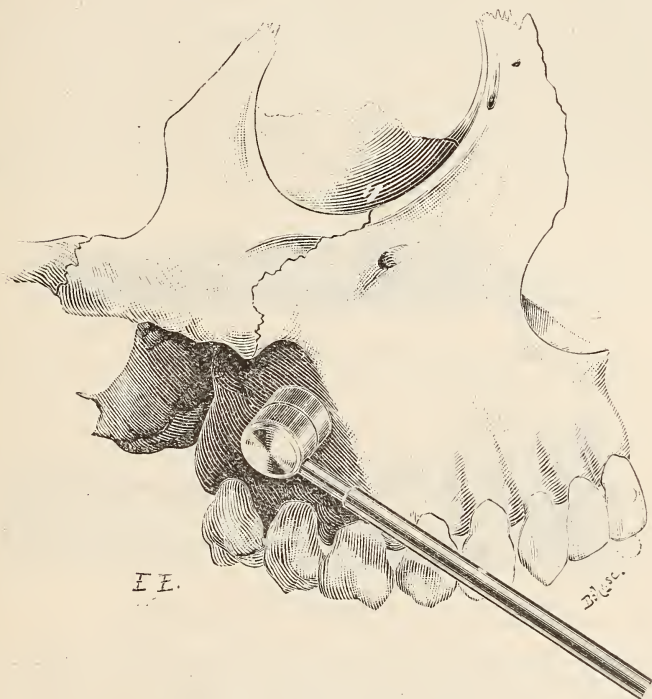


FIGURE 1—*Lamp of Escat.*

FIG. 1.—*Lamp of Escat.* This latter consists of a small incandescent bulb with a protecting metal tube, attached at right angles to a straight handle, and is applied directly to the retromaxillary fossa on the inner side of the cheeks. It shows very distinctly any opacity from the presence of pus or other morbid material in the cavity.

At last, to clear up all doubt as to the presence of pus in the maxillary sinus, exploratory puncture should be resorted to. For this purpose a small slightly curved or straight trochar is passed through the nostril and the point rested against the central wall high up beneath the anterior extremity of the

inferior turbinated bone. Here the bony partition is very thin and only a slight tap of the mallet is required to cause the point of the trochar to enter the cavity. The trochar is withdrawn,



Lamp of Escat—Applied.

leaving the canula in place, through which an injection of sterilized water is made to verify the presence or absence of pus. This method of exploration is in general to be preferred to catheterization of the natural canal, which is scarcely less painful, more difficult and does not allow free scope of the injected fluid.

Should pus be found in the maxillary sinus, we should not by any means consider our diagnosis as complete, but should then extend our investigations toward the frontal sinus. Keeping in mind the fact that disease of two or more of the accessory cavities existing at the same time is unfortunately common, and that it is the frontal sinus not rarely where the train of infection is lighted up, an attempt should be first made under the influence of cocaïn anesthesia to catheterize the fronto-nasal canal. In

certain cases this can be accomplished successfully and the cavity explored in search of pus. Great difficulty, however, is often experienced in finding the orifice of the canal until after the removal of the anterior portion of the middle turbinated bone and all granular and polypoid masses, and even then it is not always practicable. We must depend, therefore, in great measure upon the transillumination of the sinus, which is very effectively accomplished at the present day with the aid of a Vohen's lamp or of the diaphanoscope of Dr. Moure, of Bordeaux.



FIGURE 2.—*Diaphanoscope of Moure.*

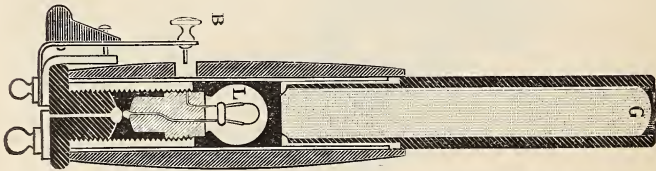


FIGURE 3.—*Diaphanoscope of Moure.*

This latter is especially to be commended for its effectiveness and convenience. It consists, as seen in Fig. 3, of a small-sized incandescent bulb, enclosed in a wooden metal-lined cylinder, which serves as a handle for the lamp. At one extremity are the two parts for the attachment of the conducting wires, isolated from the handle by a hard rubber plate, perforated for the transmission of one of the inductors to the lamp. The current is turned on or off at will, by means of the press button, attachment B, through which the circuit is completed.

The tube containing the lamp is surrounded by another tube of gutta percha enclosing a glass cylinder (G), with a convex extremity. This, while serving for the better transmission of the light, acts at the same time as a non-conductor of the heat generated by the lamp and that annoying feature is avoided. The parts can be readily detached and the bulb removed when desired. When the instrument is applied to the supraorbital region in a darkened room the light is transmitted through the

bony walls, and thus, as for the maxillary sinus, any accumulation of pus or the presence of morbid thickening of the mucosa in the sinus is made apparent by a noticeable opacity of the region. In some subjects a certain degree of opacity may exist on one or both sides independent of any morbid condition and may be attributed to a natural thickness of the integument or frontal bone, or to diminutive size or entire absence of the cavities themselves—conditions which are often found in the negro race.

Any marked difference, however, in the translucency of the two sides or an absence of translucency in one or both sides can be depended upon as an indication of some morbid condition within the frontal sinus, the nature of which is usually proven, by the existence of such concomitant symptoms above mentioned, to be an empyema.

Suppurative disease of the anterior ethmoidal cells, according to Luc, is but rarely independent of frontal sinusitis, and may be recognized, when it exists, as further evidence in favor of the existence of this latter disease. Among other authors who do not share this opinion is Dr. Moure, who claims that ethmoidal disease is often independent of frontal sinusitis, and that, though it can be readily recognized on rhinoscopic examination, it is not easy to say that the disease is limited either to the anterior or the posterior cells. Owing to the intimate connection between the cells, limitation of the diseased process to any special group of cells is rather an improbable occurrence. Rhinoscopic examination in ethmoidal disease shows the surface of the middle turbinated bone to be covered with a number of small poly-poid granulations which extend over the arterial wall of the upper nasal cavity. Granulations or polypi associated with disease of the maxillary or frontal sinuses are clustered about the infundibulum and are confined to this region.

Sphenoidal disease presents but vague indications as to its locality, especially when it exists in latent form. The discharge usually falls back into the pharynx and is expectorated, but, as before stated, this not rarely occurs in disease of the other cavities as well. In the majority of cases when the nasal cavities are roomy, the canal can be catheterized, and in some cases pus can be seen exuding directly from the orifice of this canal.

The diagnosis of frontal empyema, or of chronic suppurative sinusitis once made, it is useless, according to the present ten-

dency, to lose time on other measures than those directed toward the free evacuation of the pus and the removal of the focus of the disease. Especially in those cases which have followed a chronic latent course with a more or less constant discharge of pus or muco-pus from the nose, it is necessary to resort to radical treatment to avoid that long, tedious and unsatisfactory treatment by injections and astringent applications. In these cases the mucosa has become invariably degenerated, often thickened and granular and undergoing polypoid change, and mere drainage and cleansing give but unsatisfactory results, as a rule, and sooner or later we must resort to the complete removal of this diseased tissue to check the suppurative process.

The technique of the procedure now considered as the "*Ogston-Luc Operation*," is simple, and, as before stated, differs from the old radical operation in principle only as regards closure of the external wound and the establishment of a large communication with the nasal fossa. It must be borne in mind that the ultimate result depends in great measure upon the strict observance of details and thoroughness in their execution, with the view of completely eradicating the diseased mucosa as though it were a malignant neoplasm.

After having shaved the eyebrow and rendered the field of operation as nearly aseptic as possible, under chloroform or ether anesthesia, an incision is made along the inner third of the orbital arch, just below the supraorbital ridge and extended to the distance of a centimetre obliquely downward along the root of the nose. This incision, made for the opening of one of the sinuses, leaves but a scarcely noticeable cicatrix which is almost hidden by the regrowth of the eyebrow. Dr. Luc has recently expressed his preference, however, for a straight horizontal incision, from the centre of which, in the median line, a vertical incision is carried down to the root of the nose. This is done with a view of exposing both cavities, which in his opinion are so frequently simultaneously involved. Should it be especially desired to avoid disfiguration a separate incision for each side would be preferable. In either case the incision is carried down to the bone, the bleeding points caught up and ligated, and the periosteum detached and retracted to expose the bony wall of the sinus. For making the opening through the bone we have recourse to the electric drill, the crown trephine, and the gouge

and mallet. Of these the latter is to be recommended for safety and convenience.

The opening should be made large enough to permit illumination of the cavity by reflected light and allow access to all parts of the interior for the manipulation of instruments. A circular opening, the size of a 10-cent piece, is sufficient for all purposes.

The cavity having been opened and the pus evacuated, we arrive at the important stage of the operation, viz.: *curettage of the sinus and removal of all fungous granulations and diseased mucosa.* The effectiveness with which this is carried out influences in no small degree the final result of the treatment. With the aid of a small Volkmann curette every nook and corner of the little cavity is sought out and subjected to the curetting process, special care being given to the treatment of the fronto-nasal canal, the seat of predilection of these pyogenous granulations. Having satisfied ourselves that not a trace of the diseased tissues remains to serve as a point of origin for the return of the disease, we proceed with the next important step, that of establishing free drainage by way of a large communication with the nasal cavity. Considerable hemorrhage may occur during the curettage and momentary packing of the cavity with gauze strips will be necessary to keep clear the field of operation. In addition to enlarging the natural nasal communication it is the custom to remove with a gouge a portion of the floor of the sinus near its posterior thin part, not fearing, if necessary, to traverse some of the ethmoidal cells in making the opening sufficiently large.

This being done and before inserting the drainage tube, the parts are subjected to an application of a 20 per cent. solution of chloride of zinc, a cotton-mounted applicator being used to apply the solution to every part of the cavity.

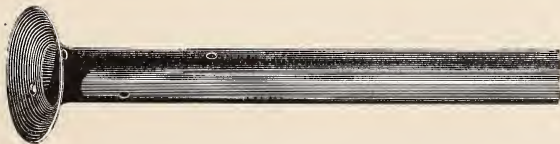


FIGURE 4.—*Drainage Tube (Luc).*

As a drain Dr. Luc employs a perforated rubber tube having one extremity expanded in the form of a funnel, and

for its introduction the well known Panas' probe or any flexible probe is required. The former instrument as is known consists of a handle holding a probe so curved as to correspond in the majority of subjects to the direction of the fronto-nasal canal.

With the larger concavity of the probe to the front, the point is introduced into the opening in the floor of the sinus, and by a turning movement is made to pass into the nasal chamber and present externally at the nostril. A strong thread is attached to this extremity, and by the withdrawal of the instrument is made to pass out at the supra-orbital wound. The smaller end of the drainage tube is then attached, and by traction on the lower extremity of the thread is made to pass into the canal. Traction is made until the expanded extremity enters the sinus and engages at the orifice of the nasal communication. The tube is cut off below at the level of the nostril and left in place. The expanded extremity, lying within the cavity above, serves to collect and carry off all post-operative secretions formed therein, and at the same time prevents displacement of the tube. A little iodoform powder is insufflated into the cavity, and, the wound being carefully sutured, a light compress of iodoform gauze and absorbent cotton is applied, and the operation is completed.

As to the after treatment, little is required to be done. If no elevation of temperature is detected the dressing is not removed until the end of six or seven days, sufficient time being allowed for firm union to take place. It was formerly the habit of Dr. Luc, in the after treatment of his cases, to employ, for the first three days, injections through the drainage tube of a tepid solution of the bichloride of mercury, 1-2000; on the following days an ethereal solution of iodoform. At the present day he dispenses with the bichloride injections almost entirely and employs instead only the iodoform solution.

The patient should be given instructions to avoid blowing the nose too forcibly while the drainage tube is in place, and even for several days after its removal, on account of the danger of inflating the sinus, tearing the sutures in the external wound, and introducing septic matter from the nasal cavity. In a case operated on by Dr. Moure, of Bordeaux, the patient, while blowing his nose, tore loose the sutures in the wound and produced an emphysema of the surrounding tissues. A firm com-

press was applied and union took place, however, without serious consequences.

The question as to how long the drainage tube should be left in place is not definitely settled, and one is to be guided to a great extent by the comfort with which it is borne by the patient and the quantity of discharge from the sinus. Both Ogston and Luc recommend from eight to fifteen days; Moure, after four or five days.

In considering the principles of this procedure from a theoretical point of view, one can not but be impressed with this plan for the eradication of the disease. Since, aside from the general condition of the patient, the morbid process is confined to the mucous membrane and periosteal lining of the sinus, and, as we know, is not specific or malignant in character, one is certainly justified in believing that, if these diseased tissues are removed completely, and the cavity rendered aseptic, a return of the disease can only take place through a reinfection.

It is unfortunately often the case that when our theories seem to be most rational and well founded the practical test shows them to be lacking in some important feature, or else that we have failed in their perfect execution.

Of course it is the height of folly to expect that any operation should be infallible, and it is not surprising to hear of occasional cases being reported in which this treatment had been followed by a renewal of the suppuration in the sinus. This has occurred even in cases in which careful attention was given, so it was said, to the details of curettage and drainage of the cavity and aseptic closure of the external wound.

In such cases, if we consider that the operation was complete in every particular, we must look to the source of reinfection as from the nasal cavity or from existing disease in the adjoining sinus or ethmoidal cells. Although, Zuckerkandl tells us that, in the vast majority of subjects, the septum between the two sinuses is of considerable thickness, and agrees with Hajex in claiming that frontal empyema is most often unilateral, from the fact that the pus penetrates with much more difficulty through this bony partition than into the orbit or cranial cavity, it is a clinical fact frequently observed that perforation has occurred and that pus breaks through from one cavity into the other. It is possible that Mr. Zuckerkandl has

based his opinion upon observations made on the skulls of healthy subjects, and has overlooked the fact that the long contact of pus with the bony walls produces perhaps some degeneration or sometimes necrosis, which makes perforation not only possible but probable in these cases of long standing suppuration.

Before operating upon one side we should take the precaution to ascertain the condition of the other side.

Closure of the external wound is a commendable feature of the operation, and when proper precautions are taken for asepsis, primary union rarely fails to take place, and thereby we not only avoid a disfiguring cicatrix, as is left in the open method of treatment, but suppress, at the same time, this source of constant infection from the outside which certainly predisposes both to attacks of erysipelas and a continuation of the suppuration.

The question has also been discussed as to the probability that, with such a free communication with the nasal cavity, infection of the sinus would readily occur, especially if there existed an atrophic rhinitis or other septic condition in the nasal cavity. The results in this particular are more favorable than might be supposed, and the rapidity with which, as a rule, the cavity, once thoroughly curetted and cauterized, resumes its normal condition in the presence of this large nasal communication has called forth the suggestion that the bactericidal properties of the nasal mucus may exert a protective influence over the adjoining cavity. In one of Luc's cases kept under observation for a long while after the operation the interior of the frontal sinus could be seen by rhinoscopic examination and appeared always dry and healthy.

Should any evidence of reinfection occur the parts can be again curetted, advantage being taken of the free access now offered by this large communication to follow the endo-nasal route.

In conclusion we feel justified in saying that, with the advantages offered by the Ogston-Luc operation over the older methods, its simplicity and elegance, and the favorable results it has given, we have at our disposal a valuable method of operating, the true worth of which is yet to be more fully appreciated.

The fact that it has run the gauntlet of criticism of our worthy confrères in France, and has been the subject of their favorable consideration, is a sufficient recommendation for its more universal adoption.

Clinical Reports.

APPENDICITIS—OPERATION.

BY Y. M. MILAM, M. D., WESTLAKE, LA.

September 27, 1897, I was called to L., male, 18 years of age, in country. Surroundings not of the best. He complained of violent pain in and around right iliac space; had been taken two days before; high fever, vomiting, pinched countenance, etc. Diagnosis, appendicitis. Operation proposed, which was not consented to until forty-eight hours later, when I called in Dr. T. H. Watkins, of Lake Charles, to assist me. After the usual preparation we proceeded to open up the abdominal cavity, just above and anterior to crest of ilium. We found appendix and cecum firmly adhered to abdominal wall, with extensive perforation of the latter, with a quantity of pus and fecal matter.

After thoroughly cleansing with bichloride of mercury solution 1 to 2000, we determined to pack with gauze and leave to nature, because the adhesion was so great it was impossible to attempt closing the perforation.

The cavity was flushed daily with above solution and repacked with iodoform gauze. Patient was kept profoundly under morphia eight days, when enema was given. Bowels acted and continued to move as desired and recovery was rapid.

I report this case to show the necessity of an early operation and the advantage of the selection of above named point for operating above that over median line, for the sake of drainage. No doubt, if the physician will urge the necessity of this operation and do it instead of sending away for the surgeon (specialist) it will soon be not so much dreaded and many lives may be saved that are now lost.

INTESTINAL PERFORATION IN TYPHOID FEVER—RECOVERY.

By T. E. B. BERRY, M. D., BRANDON, MISS.

Mrs. G., aged 25, had typhoid fever, beginning in July, 1897. It was rather more than an average case; fever remained high, temperature from $102\frac{2}{3}$ deg. to 105 deg. for more than two weeks. She was not free of fever for forty days, and then for one week was free during the morning but would have a slight rise during the evening to about $99\frac{1}{2}$ deg. At the end of this week it began to rise again and in ten days had reached 104 deg. in the evening. About this time it began to decline again and at the end of two weeks it was about 102 deg. in the evening and 100 deg. in the morning. Her general condition was good at this time and no fears of her recovery entertained.

At this stage an unexpected change occurred. The bowel was perforated and she came near dying of collapse. I saw her soon after the accident and found her with a very rapid (160 per minute), feeble pulse. Temperature below normal; extremities cold and great pain in the right iliac region. Prompt measures were instituted to bring about reaction. She slowly responded, but her condition remained critical for several days. After this she slowly but gradually improved and recovered fully after being in bed 100 days.

With the reaction from the collapse, a violent peritonitis developed and the fever rose to 104 again. The peritonitis was treated mainly by the application of the ice bag.

I do not think the perforation could have been very large, probably only large enough to permit the escape of gas, and not fecal matter into the peritoneal cavity.

The only feature of interest in the case was the recovery after the perforation.

THE INDIAN LANCET, of Calcutta, in its last number publishes Dr. Dyer's article on "Antivenomous Serum in Leprosy" among its original articles. We are glad to notice the recognition of its importance, at the same time regretting that the JOURNAL was not given due credit.

Correspondence.

OUR NEW YORK LETTER.

At a meeting of the Society of Medical Jurisprudence, a committee was appointed to consider the regulation of the practice of midwives by legislation. This is a question which has been continually coming up before medical societies for many years, but nothing thus far has been accomplished. Twenty years ago, the County Medical Society discussed the advisability of attempting to regulate the practice of midwives, and all but one member voted against such interference. The stumbling block in the way is the false dictum "labor is a physiological process" and consequently a woman is free to call in whomever she wishes to assist. The great fatality attending the practice of midwifery by the uneducated is sufficient reason for investigating the matter and attempting to lower this unnecessarily high mortality.

The committee, after due consideration, have drafted a bill which will be introduced at the present session of the Legislature. This bill vests the regents of the State University with power to license midwives after subjecting them to an examination. Two classes of midwives are created by the proposed law; those who after a year's study show their competency by examination, and those whose qualifications consist only in their actual practice during two years prior to the law's enactment. In view of the large number of professed abortionists among midwives the desirability of absolutely prohibiting them from attending cases of abortion or miscarriage is being considered with the intention of having it incorporated in the bill. The members of the committee expect to send such convincing statistics with this bill as will insure a prompt enactment.

At a meeting of the New York Surgical Society, held at the Academy of Medicine on December 8, 1897, Dr. B. Farquar Curtis presented a patient, 42 years of age, born in Sweden, by occupation a seaman. Among his duties was throwing a lead, which weighed from six to eight pounds, then playing out the string, to which it was attached, through his fingers. This had to be repeated every few minutes, sometimes for hours. His

right arm became swollen and painful, and he almost lost the use of it. When he entered St. Luke's Hospital, in July last, the arm was swollen and edematous and a pulsating tumor was felt above the clavicle, about the size of an English walnut. Nothing could be felt in the axilla. His radial arteries were in fairly good condition, although he gave a history of syphilis. The aneurism evidently sprang from the second part of the subclavian. There was no reason for believing that the first part of the artery was not in good condition, and it was therefore decided to pass a ligature around it.

The operation was done about four months ago, as follows: A vertical incision was made along the inner border of the sterno-cleido muscle, which was then partially divided in order to get a better exposure. The sternal end of the clavicle was then resected and turned out of the way. The artery was found to be healthy up to the inner border of the scalenus anticus muscle. Several chromicized catgut ligatures were passed around the artery, about one-eighth of an inch from the thyroid axis. The ligatures were tied tight enough to occlude the vessel, following the method described by Ballance-Edmunds. The clavicle was turned back to its normal position and anchored to the sternum.

Pulsation in the aneurism ceased immediately after the operation. Within twenty-four hours the circulation in the fingers was normal, and the man has since remained perfectly well.

Dr. Curtis said that so far as he knew this was the only case on record in which the first part of the subclavian artery had been successfully tied in continuity by modern methods.

In the discussion that followed Dr. L. A. Stimson said that he thought it would be a mistake to assume that the method of ligation resorted to by Dr. Curtis was the only safe one that could have been employed to occlude the artery in the neighborhood of so large a branch as the thyroid axis. Certain experiments in this direction had convinced him that the common idea regarding the action of a ligature about an artery is quite illusory, and that a ligature can not be so applied as not to damage the walls of the vessel. It produces a molecular absorption of the vessel walls which is identical with that resulting from a ligature drawn tightly enough to break the arterial wall.

At the meeting of the Section on Genito-Urinary Surgery,

held at the Academy of Medicine on Tuesday, January 11, Dr. James Pedersen showed specimens of vesicular calculi taken from two patients. In the first patient he undertook to do a litholopaxy, but the lithotrite was passed with such difficulty that the operation of median lithotomy was resorted to. Two calculi were removed, weighing 143 and 127 grains, respectively, a combined weight of 270 grains.

The specimen taken from the second patient by a supra-pubic cystotomy was shown. When fresh the specimen weighed 1505 grains, or 3 ounces and 65 grains. Its weight now is 3 ounces less 20 grains, or 1420 grains.

At the same meeting Dr. Leonard Weber reported a case of hypertrophy of the prostate which was treated by the galvano-caustic method as devised by Bottini and modified by Freudenberg. This operation during recent years was neither received with enthusiasm nor with much faith mainly because surgeons, as a rule, are not much inclined to use the galvano-cautery in dark regions, and partly also because the author failed to state in his early communications on the subject what he expected to take place after the operation; whether it was to be a new and permanent channel made and maintained by the cautery or was a liberation of the natural prostatic urethra by a certain degree of atrophy following superficial *mollement* of the gland or both. It was not until quite recently, when Bottini's instrument had been modified and improved by Freudenberg, of Berlin, and a few successful operations done with it, that the profession in general began to investigate the claims made for it. Dr. Weber related a peculiar accident that occurred in the course of an operation which he had recently performed, where the three cuts were made without being accompanied by any sizzling noise or the odor of burnt flesh, but there was considerable oozing of blood from the meatus. They had forgotten to close the circuit in the instrument and it was only the cold steel which had produced the superficial lacerations. The doctor said that when he first examined the instrument it struck him that the small screw for closing and opening the circuit in the instrument itself was unnecessary and that it tended to complicate matters; he did not think it was a simple instrument by any means, but required much attention and study.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

DIFFERENTIAL DIAGNOSIS OF YELLOW FEVER.

The JOURNAL has previously insisted on the importance of studying the means of differentiating between yellow fever and the few diseases for which it can be mistaken. Particularly is this urgent in reference to dengue, cases of which may present similar features and which mild cases of yellow fever certainly resemble, since it has even been claimed that the two diseases shaded into each other.

The medical press generally has taken up the question and many articles have been written either in like strain or to try and throw some light on the subject. A recent editorial in the *Philadelphia Medical Journal* correctly states the need to be "some trustworthy blood or bacteriologic test, such as we now have in the malarial and typhoid fevers."

It looks as if this desideratum had already been attained.

The valuable paper on the serum diagnosis of yellow fever published in this issue justifies the belief that Drs. Archinard and Dr. Woodson have found an efficient test. Confirmation by others, which we confidently anticipate, will establish its importance. The necessity will remain for the study, as soon as the opportunity presents, of the action of blood from undoubted dengue cases upon the bacillus icteroides, inasmuch as there is a bare possibility of some connection between the two diseases. Should dengue blood give negative results as typhoid and malarial blood are proven to do, then the test can be adopted as confidently as the Widal test for typhoid fever. Making due allowance for all possible sources of error, the agglutination is produced in a sufficiently large proportion of cases for us to consider it a very valuable means of diagnosis.

The announcement of the results obtained should prove of intense interest the world over, not only on account of their practical possibilities, but because they add to the importance of

the bacillus icteroides, as they confirm to a great extent the claims of its discoverer.

We congratulate our collaborator, Dr. P. E. Archinard, and *his* collaborators on their good work and trust that their further researches as well as confirmatory evidence from elsewhere will conclusively show the correctness of their position.

THE MEDICAL PROFESSION TO EDUCATE THE PUBLIC.

Excepting for an occasional sensational effort at the hands of some layman in an unfamiliar field of thought, laid before the public in the columns of the daily press as scientific reading matter, the public lives in the darkest ignorance of subjects cognate with medicine. The monthly periodicals at times solicit medical men for articles on pressing medical topics relating to jurisprudence, legislation or the public health, but these are rare, even spasmodic. Besides, these periodicals reach only the educated classes, and the articles strike a plane above the average mentality.

We have striven earnestly for higher medical education because education begets intelligence, as it does wisdom, and the profession of medicine is no longer a limited field of intellectual expression. Hitherto the medical man has surrounded himself too much with mysteriousness and exalted profundity in contact with his patients, except for the necessary opinion upon diagnosis, prognosis and treatment. The public, in large part, has brought itself out of a lethargic indifference to the knowledge of what constitutes a healthy body, or a healthy community, and more and more the medical profession has been compelled to broaden its field of usefulness.

We should not wait for the public to stumble upon the education they need, but should individually make the effort to anticipate this need by acting advisory as educators upon those questions of private and public hygiene, prophylaxis, and of the means of preventive medicine. In this line we are glad to note the movement in our country parishes toward organizing a school for the public, arranged upon the Chautauquan plan, in which all classes can be educated upon questions of hygiene and sanitation, with the view to an intelligent combating of all epidemic or prevalent diseases.

WORK OF DISINFECTION.

The local Board of Health deserves due credit for a persistent effort in the direction of disinfecting premises and articles of clothing subjected to infection in the late yellow fever visitation. It is not too late to emphasize their injunctions made in December, and printed in the daily papers.

“The board offers to perform the necessary work of disinfection, without charge, and with the least possible inconvenience to householders.

“The citizens of New Orleans are earnestly requested to second this effort of the board to free the city of any lingering trace of infection.

“Applications should be made in writing, and will receive attention in the order of their receipt.

“In view of the great value of thorough aeration as a means of purifying the interior of dwellings, it is respectfully suggested and urged that every opportunity be utilized to admit a copious supply of dry, cold air and plenty of sunshine into houses where sickness has occurred, and to so dispose bedding, clothing, etc., in such houses as to secure the full benefit of this plan of purification.”

Medical News Items.

THE NEW LOUISIANA STATE BOARD OF HEALTH was appointed by Governor Foster on January 24. The membership of this board comprises men well known in the medical and business communities. As announced in the daily press of the 25th, the board is constituted as follows: Drs. Edmond Souchon, L. F. Reynaud, Luther Sexton, J. J. Castellanos and H. S. Lewis, and Messrs Stanley O. Thomas, J. D. Hill, John W. Castles and Jules C. Denis.

PROF. NICHOLAS SENN has been spending some time in this city and in Louisiana, enjoying his needed and well deserved vacation.

Dr. Senn occupied himself mostly in hunting various forms of game afforded in the different sections of the State, and is

quite enthusiastic over the sport, especially over the facilities offered.

DR. FELIX E. GIRARD was recently united in marriage to Miss Mamie Foucher, of New Orleans. The doctor and his bride will live in Lafayette in the future.

DR. LOLA D. CLARK, for some time associated pleasantly with the Ear, Eye, Nose and Throat Hospital, was married on December 25, to Dr. Norman E. Mighell, at Hartford, Indiana. Dr. and Mrs. Mighell are now located at Marshalltown, Iowa.

ABORTION STATISTICS WANTED.—Dr. C. D. Arnold, of El Reno, Oklahoma, desires information from all physicians and midwives upon the following questions:

“1. Give total number of abortions from all causes that occurred in your practice during 1897?”

“2. In how many of these abortions were the elements of criminality, to your mind, apparent?”

“3. In how many of these abortions, except those classed in question 2, were the elements of criminality, to your mind, probable?”

“4. How many of the abortions named in questions 2 and 3 were followed by puerperal septicemia or other diseases?”

“5. How many deaths resulted from the abortions named in questions 2 and 3?”

“6. How many still-born in your practice?”

“7. How many infanticides?”

“8. How many viable children born in your practice?”

“9. How many cases of puerperal mania resulted from the abortions classed in questions 2 and 3?”

THE TRI-STATE MEDICAL JOURNAL AND PRACTITIONER, of St. Louis, announces that it will publish as a serial, Dr. W. B. Outten's book, entitled “Man's Inherited Martyrdom; a Fitful Study of Degeneration,” which is said to be intensely interesting.

A DAMAGE SUIT involving a novel question has just been tried in Chicago. A woman, within four days of her confinement, entered a lying-in hospital, and in going up the elevator some accident happened to the latter, by which her unborn child was permanently injured. This child afterward became the plaintiff

in the suit. "The question was whether a child after it is born has a right of action for injuries sustained by it *en ventre sa mère*; in other words, whether a child unborn is a person in being, so as to be entitled after its birth to maintain such an action." Judge Chetlain rendered a decision in the affirmative, holding that the plaintiff had good cause for action.—*Atlanta Med. and Surg. Journal*, Dec., 1897.

DR. JOSEPH O'DWYER DEAD.—"A great benefactor of the human race, a modest, upright and lovable man has been lost to the New York profession in Dr. O'Dwyer's death. The memory of his achievements in the intubation treatment of laryngeal obstruction will never die; the memory of him as a man will be cherished by all who had the privilege of knowing him."—*N. Y. Medical Journal*.

DR. J. W. McLAUGHLIN, of Austin, Texas, has been made Professor of Practice of Medicine in the Medical Department of the University of Texas at Galveston. Dr. McLaughlin's ability has long been known and the profession of his own State, as well as the profession at large, are pleased at the deserved recognition.

In accepting this honor, he has had to sever his connection with the *Texas Medical News* as its senior editor. This is a serious loss to our esteemed contemporary. We note, however, that Drs. A. N. Denton and M. M. Smith have been added to its editorial staff, with whose assistance, we feel sure, Dr. Bennett will keep up the standard of the *News*.

DR. H. R. CARTER, Surgeon United States Marine Hospital Service, was ordered last month to proceed to the Gulf Coast and supervise the post-epidemic infection.

THE NEW ORLEANS POLYCLINIC began its eleventh annual session on January 17. The number of physicians already in attendance promise a successful term.

MR. W. B. SAUNDERS, of Philadelphia, announces the following works in preparation for early publication: An American Text-Book of Diseases of the Eye, Ear, Nose and Throat; an American Text-Book of Pathology; an American Text-Book of Legal Medicine and Toxicology; Stengal's Pathology; Church

& Peterson's Nervous and Mental Diseases; Heisler's Embryology; Kyle on the Nose and Throat; Hirst's Obstetrics; West's Nursing.

THE UNIVERSITY OF CHICAGO AND THE RUSH MEDICAL COLLEGE have entered into an agreement for affiliation, so that after the autumn of 1902 none but college men shall be eligible to the course of medical instruction in the latter institution, and their qualification shall be determined by the completion of the freshman and sophomore years of college work.

The JOURNAL congratulates the two institutions upon this step toward a higher medical education, which must result creditably.

Abstracts, Extracts and Miscellany

Department of General Surgery.

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

DIFFERENTIAL DIAGNOSIS BETWEEN APPENDICITIS AND INFLAMMATION OF THE UTERINE ANNEXES.—Doloris cites the following case in regard to the differential diagnosis between inflammation of the appendix and of the uterine annexes. Mrs. X, aged 24, primipara, deplorably neurasthenic, was treated in January, 1892, for chronic cervicitis, with painful appendages, completely adherent on the right side. A conservative treatment was followed by a decided improvement, and at the end of that year no perceptible lesions of those parts could be detected. In 1895 she had some intestinal troubles; constipation and gastro-intestinal disorders. In the beginning of the year she was seized several days before her menstrual period with a violent pain on the right side, unaccompanied by constipation or vomiting; she had a slight fever, coated tongue. In July she had a second attack, in London, diagnosed appendicitis. She returned to Paris, and had a third attack, during which Doloris examined her. No lesions easily accessible were felt in the pelvis, nor in the abdomen. With the finger, a sensitive zone

was reached very high up. Doloris reserved his diagnosis, and, persuaded by the patient and her friends, he resolved to perform laparotomy. The appendix was normal, but the annexes of the corresponding side were adherent to the posterior surfaces of the broad ligament. Behind the ovary, which gave signs of folliculitis, was found a small tumor, the size of a nut, containing an old clot. Castration on the right, resection of the appendix. Recovery.—*Lyon Médical*.

HEPATOPEXY FOR COMPLETE HEPATOPTOSIS.—Mr. Blanc relates the case of a woman, aged 35, troubled with locomotor ataxia, who had had a series of febrile attacks accompanied by violent chills, and with copious bilious vomiting. He feared from these symptoms an abscess of the liver, which viscus was considerably enlarged during the attacks.

Examination between the spells revealed a large liver, specially descending very low to three fingers breadth under the umbilicus; on seizing it between the palm of the hand and the thumb, it slipped out like a cherry seed and ascended under the false ribs; on removing the hand, it immediately fell back. Hepatoptosis was recognized and the febrile movements, which in time were accompanied by a slight icterus, were very probably due to the bending of the biliary ducts and the consequent biliary retention. Fixation of the liver was then deemed imperative.

The operation was thus performed: A vertical incision from the false ribs down to the umbilicus along the external border of the rectus.

The liver was found hard, with hour-glass constriction (deformed by corset), and lowered *en masse*; it could easily be pushed upward under the ribs. Before applying fixation sutures, scraping the anterior surface of the liver and the adjacent region of the false ribs was resorted to so as to have bleeding surfaces in juxtaposition; three silk threads (No. 3) were inserted to about four inches depth into the liver and carried out between the cartilages of the false ribs, thereby suspending the liver; moreover, three silk threads fixed the organ to the upper portion of the incision, passing through the peritoneum and the musculo-aponeurotic plane.

Perfect uncomplicated operative result with complete cessation of febrile and painful crisis, since February 15, 1896, date of operation.—*Lyon Médical*, October 24, 1897.

Department of Obstetrics and Gynecology.

In charge of DR. P. MICHINARD, New Orleans.

VESICO-VAGINAL FISTULA.—Dr. Stanmore Bishop suggests the following operation for the cure of vesico-vaginal fistula: “A circular incision is made around the fistula, passing through the mucous membrane and foot of the subjacent tissue, so that a continuous flap of sufficient thickness can be raised and separated up near to, but not through the angle at the fistulous edge; the width of this flap must be judged by the surgeon in each particular case. It must, however, be wide enough, when brought together in the way to be described, not merely easily to close the opening, but to project for about a fourth to a third of an inch into the bladder cavity at the centre. When so separated it lies like a truncated glove finger, attached solely at the edge and continuous with the mucous wall of the bladder. To four equi-distant points in this frill four long double threads are attached, but not knotted, so that they will easily pull out. Each pair is knotted at its ends outside the vagina. When this is done a curved pair of forceps is passed through the urethra until its beak appears in the centre of the frill, the four pairs of threads are brought together and their knotted ends placed within the grip of the forceps. As this is withdrawn, closed, it will carry the threads through the fistula, through the urethra and bladder. Gentle traction upon these threads will invert the circular flap into the bladder in such a way that mucous membrane will face the bladder, whilst the raw connective tissue surface will face itself and come easily together at the level of the bladder wall, whilst the innermost edges project on a tube into the bladder cavity. While traction upon these threads is very gently but firmly maintained, and before the frill is inverted, a fine silk suture is carried round it just above its extremity, the suture passes through the connective tissue, but carefully avoids the mucous membrane. It lies like a purse-string and it is tightened up just after the inversion takes place. It draws together the raw surfaces of what before inversion was the outer, but is now the inner surface of the frill, and closes

the upper extremity of the tuft. When knotted the ends of this suture are cut short and the whole suture is buried by the further inversion produced by a continuation of the traction upon the guiding threads. Another circular suture is applied in the same way, knotted, and its ends cut short. The raw surfaces in the vagina are now drawn together and united by a silk-worm gut suture."—*London Lancet*.

CURE OF PRURITUS VULVÆ BY OPERATION.—Von Mars (*Monats. f. Geburtch. u. Gynäk.*), in three cases of pruritus vulvæ under his observation, noted that the labia majora were, probably from changes due to swelling or atrophy, in a condition of entropion, hair being turned inward on the vestibule and clitoris. When the hair was carefully trimmed the pruritis at once ceased. Von Mars suggests the formation of an artificial entropion of the labia in these cases by the removal of an elliptical piece of skin from the outer limits of the labium majus.—*Atlantic Med. Weekly*.

Department of General Medicine.

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

A CASE OF LEVANT FEVER.—Professor Alexander Smith in the January number of the *American Journal of Medical Sciences* reports the first case, so far as he can ascertain, of this fever in this country. The history is carefully given, together with a review of the literature and characteristics of the disease. Examinations of the blood were made by Dr. John S. Billings, Jr., revealing a parasite resembling the youngest form of the organism seen in the two types of malarial fever in the United States, differing in certain important particulars.

The fever lasted four weeks, with a cessation of three days, followed by a second course of fever, lasting four weeks, the temperature being 102.5 deg. Fahr. morning, and 104 deg. Fahr. evening. Then no fever for three weeks, recurrence beginning October 1, 1896, and fever continuing until the latter part of

April, 1897. At first of a remittent type, the fever later changed to intermittent, being resistant to quinine.

No pigment was found in the blood plasma nor in the corpuscles. The spleen was not enlarged. No marked degeneration of the blood corpuscles. While the organisms bore resemblance to malarial forms the other features in the case suggest other than a malarial origin.

Observers in the Levant have looked upon this fever as malarial, notwithstanding the marked resistance to quinine.

Although from Iowa, where members of her family had suffered from malarial manifestations, the patient only showed the manifestations noted after going to Syria to live.

The literature of the fevers occurring in the Levant, or the countries bordering on the Mediterranean, shows the greatest confusion. Authors describe the same disease by different names, and different diseases by the same name. Bruce (*Ann. de l'Ins. Pasteur*, 1893, Vol. VII, p. 289) describes cases he saw at Malta as "Mediterranean fever," to which the above case bears close resemblance. He describes it as a subacute, infectious, non-contagious disease, characterized clinically by fever, sweats, constipation and frequent relapses. It is usually accompanied, or followed, by severe rheumatoid or neuralgic pains, with redness, tenderness and swelling of the various joints. The spleen is large and soft. As the disease progresses anemia develops. The disease prevails during the summer months. There is general malaise, headache, etc., for eight to ten days, when the temperature rises gradually, taking three or four days to reach its maximum, after which it runs a course of a remittent type, falling to 100 deg. Fahrenheit in the morning hours, and rising to 103 deg. and 104 deg. Fahrenheit in the afternoons. The fever generally lasts one month, the temperature gradually falling to normal, where it remains about three days, when the same course of events repeats itself. The disease may last six months or a year. The fever is little influenced by quinine or arsenic. The plasmodium of malaria is not present; there are no rose spots or tympanites, and on post-mortem the Peyer's patches are found to be unaffected. Bruce has found in the spleen a micrococcus (*M. melitensis*), which he holds to be the cause of the disease. Monkeys injected with cultures of this organism showed a typical rise of

temperature and continued fever lasting some months, and the micrococcus was found in the spleen and internal organs on autopsy. Hughes (*Ibid.*, p. 628) confirms these statements, and also finds the *M. melitensis*, but does not believe this organism to be the actual cause.

REMARKS.—In the *warm climate* portion of the United States (isothermal lines from + 25 deg. C. to + 15 deg. C.) obstinate cases of continued fever, with intermissions and relapses running several months, are not so uncommon, a fever resistant to quinine, arsenic, and also to change of locality. Possibly the parasite resembling somewhat the malarial organisms which Dr. J. S. Billings, Jr., has observed in the case here reported might be found upon investigation to be the actual cause of the continued fevers alluded to.

Department of Therapeutics.

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

SCHOTT'S MOVEMENTS.—Dr. Brunton, in his Lectures on the Actions of Medicines, gives the following movements used by Dr. Schott in the treatment of heart disease. The essential parts of these movements are that the movements shall be slow and regular, and that each movement should be fully carried out. The body should be held upright, the joints should be kept straight, and the resistance applied should not be sufficiently great to cause any tremor of the limbs or shortness of breath in the patient.

The resistance may either be applied to the patient himself, putting into action the opposing muscles to those which affect the movements, or by an attendant or friend gently opposing the movements.

1. The arms are to be raised slowly outward from the side until they are on a level with the shoulder. After a pause they should be slowly lowered.

2. The body should be inclined sideways as much as possible, toward the right and then to the left.

3. One leg should be extended as far as possible, sideways from the body, the patient steadying himself by holding on to a chair. The leg is then dropped back. The same movements are repeated by the other leg.

4. The arms are raised in front of the body to a level with the shoulder and then put down.

5. The hands are rested on the hips and the body is bent forward as far as possible, and then raised to the upright position.

6. One leg is raised with the knee straight, forward as far as possible, then brought back. This movement is repeated with the other leg.

7. With the hands on the hips, the body is twisted round as far as possible to the right, and then again to the left.

8. With the hands resting on a chair and the back stiff and straight, each leg is raised as far as possible backward, first one and then the other.

9. The arms are extended, with the fists supinated. The arms are then extended outward at the height of the body.

10. Each knee is first raised as far as possible to the body and the leg extended.

11. This movement is the same as 9, but with the fists pronated.

12. Each leg is bent backward from the knee and then straightened.

13. Each arm is bent and straightened from the elbow.

14. The arms are brought from the sides forward and upward, then downward and back as far as they will go, the elbows and the hands being straight.

15. The arms are put at a level with the shoulder, and then bent from the elbow inward and again extended.

16. With the arms in front at the level of the shoulder and the hands stretched, the arms are opened out sideways and then brought together.

17. The arms are bent from the elbow outward and extended.

N. B.—There should be a pause of half a minute between each successive movement, such as raising the arms and lowering them, and a pause of one or two minutes between the movements of different kinds, such as 1 and 2.

OREXIN IN THE TREATMENT OF ATONY OF THE STOMACH.—Prof. D. Scognamiglio, Naples, gives the result in twenty-five cases, as follows: Completely cured, 17 cases. Considerably improved, 6 cases. Slightly improved, 2 cases.—*The Therapist*.

KRYOFIN.—Dr. Hermann Eichorst says this is the most reliable antipyretic with which he is acquainted. This conclusion was arrived at after careful test by Dr. Bischler at the Medical Clinic of the University of Zurich. Kryofin forms white, odorless crystals, which have no taste and are, therefore, conveniently taken in powder form or in wafers. It is soluble 1:52 in boiling and 1:600 in cold water. In concentrated solution kryofin tastes bitter and biting. A reliable active dose is $7\frac{1}{2}$ grains.—*Deutsche Med. Wochenschrift*.

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 Principles of Bacteriology. By A. C. ABBOTT, M. D., Professor of Hygiene and Director of the Laboratory of Hygiene, University of Pennsylvania. Fourth edition. Lea Brothers & Co., Philadelphia and New York.

The fact that in less than six years this book has run through three editions is evidence enough of its popularity and worth. The fourth edition is again an improvement over its predecessor; it is considerably larger and more complete in its details. The whole science of bacteriology is thoroughly treated; the instructions given for its technical workings are so clear and precise that by following them literally any tyro could accomplish satisfactory work. We can recommend this excellent work very highly to practitioners and students.

P. E. A.

Cutaneous Medicine. By L. A. DUHRING, M. D., Professor of Diseases of the Skin in the University of Pennsylvania. Part II. J. B. Lippincott Company, Philadelphia and London. 1898.

The detail of this second part of Professor Duhring's work has been most carefully done. He has arranged his own classification, but in the main follows that of the American Dermatological Association. The illustrations are almost wholly in half tone cuts, which are unusually clear and remarkably true to nature. The text is explicit and comprehensive and bears the stamp of the author's usual care. Among the notable articles in the book are those on the Erythemas and on Eczema. The latter is masterly in its breadth and presentation as well as in the exhaustive consideration of the difficulties of variations and exceptions from the usual types. The work of Dr. Duhring in the first two volumes of his system demonstrates more than anything else how much better results may be achieved, when outlined and executed by one man, with all the interest and responsibility, than is to be found in the multitude of cyclopedic text-books now extant.

DYER.

About Children; Lectures to Nurses. By SAMUEL W. KELLEY, M. D., Professor of Diseases of Children in the Cleveland College of Physicians and Surgeons. The Medical Gazette Publishing Company, Cleveland. 1897.

Originally arranged as lectures, the material of this little book has been so well handled that it is above all readable. The style is easy and the vast amount of information contained makes the book useful as a simple handbook on the care of children, while it has much to teach in understanding them. The binding, type and paper are of the best.

DYER.

Tuberculosis of the Genito-Urinary Organs, Male and Female. By N. SENN, M. D., PH. D., LL. D. W. B. Saunders, Philadelphia, 1897.

It is only comparatively recently that tuberculosis of the genital and urinary organs has commenced to receive due attention, especially in this country. Professor Senn has given us a

treatise on this subject which goes far toward filling the gap. His work, of about three hundred pages, is divided into ten chapters; the first two are devoted to the male genital organs, the next six to the female organs of generation, and the other two to the organs common to both, the bladder and kidneys.

The salient points in the etiology, pathology, and clinical aspects of the diseases, as culled from surgical literature, have been set forth and the topics that have attracted the author's attention have been emphasized by his personal observations. One is struck at once by the tremendous number of references given, few pages lacking one or more, the majority of them being recent. The work is systematic, complete and contains valuable practical descriptions of operations and therapeutic measures, although it is admitted that the latter are not yet satisfactory.

There are a few slips which should be corrected when a new edition is issued. For instance, in speaking of the possibility of inoculation during coitus, the author states (page 19) the "occurrence is beyond the range of imagination" when he evidently means that it is not. Also we do not understand why he should say (page 100) that iodoform is inert in suppurating tubercular lesions when he has just told us that it is "especially serviceable in the treatment of tubercular abscesses."

The publisher's work is excellent, the paper and type being particularly satisfactory.

The book is valuable as a guide to the practitioner and as a reference to the specialist.

C. C.

PUBLICATIONS RECEIVED.

Treatment of Disease by Electric Currents, by S. H. Morrell, M. D.—Wm. Beverley Harrison, New York, 1897.

Manual of Legal Medicine, by Justin Herold, M. D.—J. B. Lippincott Co., Philadelphia, 1897.

The Care and Feeding of Children, by L. Emmett Holt, M. D.—D. Appleton & Co., New York, 1897.

Report of the Kensington Hospital for Women, 1895 to 1896.

Ambroise Paré and His Times, by Stephen Paget.—G. P. Putnam's Sons, New York and London, 1897.

Manual of Obstetrics, by A. F. A. King, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Saw Palmetto, by Edwin M. Hale, M. D. Boericke & Tafel, Philadelphia, 1898.

Outlines of Rural Hygiene, by Harvey B. Bashore, M. D.—The F. A. Davis Co., Philadelphia, New York, Chicago, 1897.

Elements of Latin (for Students of Medicine, etc.), by Geo. D. Crothers, M. D., and H. H. Brice, A. M.—The F. A. Davis Co., Philadelphia, New York, Chicago, 1898.

REPRINTS.

Jos. Friederich Peringer: His Methods and Investigations, by Harry Friedenwald, A. B., M. D.

Stercorin and Cholesteremia, by Austin Flint, M. D., LL. D.

Recurrent Gall-Stones.—Angioma of Spleen.—Excision of Cecum, by Jno. Homans, M. D.

The Use of Argonin in Gonorrhoeal Ophthalmia.—Rupture of the Choroid Coat.—Albuminuric Retinitis, by E. C. Elliott, M. D.

Resection and Advancement of the Levator Palpebrae, by Chas. A. Oliver, M. D.

Pyemia in a Young Infant, by John C. da Costa, M. D.

History of the Dengue Epidemic in Galveston in 1897, by C. H. Wilkinson, M. D.

A National Board of Health, by Frank G. Renshaw, M. D.

Trois Cas de Complications Intra-Craniennes d'Origine Otique, by E. J. Moure, M. D.

Preparation and Testing Diphtheria Antitoxin, by Geo. W. Cox, M. D.

Chloralamid Schering, by H. Helbing, F. C. S., and others.

Silber als äusseres und inneres Antisepticum, by Dr. Crédé.

Address on Ophthalmology, by Jos. E. Willetts, M. D.

Further Experience with Vaginal Fixation of the Round Ligaments, by Hiram N. Vineberg, M. D.

Criminal Abortion: Its Prevalence, Prevention, etc., by H. R. Storer, M. D.

Primary Sarcoma of the Iris, by Clarence A. Veasey, M. D.

Alcoholism in Women, by Agnes Sparks, M. D.

Stone in the Kidney, by Charles R. Robins, M. D.

Bunion, by Parker Syms, M. D.

Headaches from Nasal Causes, by Sargent F. Snow, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.
FOR DECEMBER, 1897.

CAUSE.	White.....	Colored.....	Total.....
Fever, Malarial (unclassified).....	1	2	3
“ “ Intermittent			1
“ “ Remittent	1		1
“ “ Congestive.....	2	1	3
“ “ Typho	2	1	3
“ Yellow	7		7
“ Typhoid or Enteric.....	9	7	16
“ Puerperal		1	1
Influenza.....			
Measles			
Diphtheria	1		1
Whooping Cough			
Apoplexy	10	7	17
Congestion of Brain.....	2	1	3
Meningitis	4	4	8
Pneumonia.....	18	17	35
Bronchitis	11	5	16
Cancer.....	9	1	10
Consumption.....	38	40	78
Bright's Disease (Nephritis)	21	10	31
Uremia	2		2
Diarrhea (Enteritis).....	20	11	31
Gastro-Enteritis	4	2	6
Dysentery.....	8	1	9
Hepatitis.....	4	1	5
Hepatic Cirrhosis	3	3	6
Peritonitis.....	2	2	4
Debility, General	1	2	3
“ Senile	13	9	22
“ Infantile	3	4	7
Heart, Diseases of	26	17	43
Tetanus, Idiopathic			
“ Traumatic	4	1	5
Trismus Nascentium.....	11	8	19
Injuries	13	13	26
Suicide	4		4
All Other Causes	93	48	141
TOTAL	347	219	566

Still-born Children—White, 24; colored, 25; total, 49.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 21.35; colored, 32.85; total, 24.70.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.16
Mean temperature	57.00
Total precipitation.....	4.00 inches
Prevailing direction of wind, southeast.	

March, 1898.

*Paullum sepultæ distat inertie
Celatu virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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Subscription, \$2.00 Per Annum,
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MARCH, 1898.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

(Established in 1844.)

EDITORS:

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ISADORE DYER, M. D.

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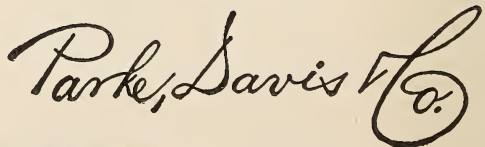
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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. L.

MARCH, 1898.

No. 9.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

THE TREATMENT OF PROSTATIC DISEASES, WITH SPECIAL REFERENCE TO HYPERTROPHY.

BY RAMON GUIERAS, M. D., NEW YORK.

The prostate gland is a body shaped like a truncated cone, flattened in front and behind; or, in other words, something of the form of a horse chestnut, and surrounds the neck of the bladder and the beginning of the urethra. Its base is the part in contact with the bladder, and its apex that which is contiguous with the urethra. It is about one and one-half inches wide, one and one-quarter inches deep, and three-quarters of an inch in thickness. It is composed of three lobes, two lateral ones which meet in front and behind, and a middle one situated between the lateral lobes posteriorly under the floor of the urethra, which does not manifest itself until the patient is pretty well advanced in years. This third or middle portion is not, strictly speaking, a lobe, but consists of glandular tissue situated in the space behind the upper end of the urethra and the neck of the bladder, where the two lateral lobes diverge, which, when it hypertrophies, presses up the urethra at the orifice of the bladder, thus rendering it impossible to completely empty this viscus.

In structure, the prostate gland is made up principally of muscular and glandular tissue, the glands resembling racemose

glands. They occur in globules, forty or fifty in number, and their ducts open into the floor of the prostatic urethra in twenty or more places. The muscular fibres are found along and around the urethra, and radiate from it. They are mixed with fibrous and elastic tissue, and support the glandular elements, forming the stroma. The gland is encased in its *capsula propria*, which can not be separated from it without great difficulty. External to this is a second capsule which is continuous with the deep perineal fascia at its apex. Between these two capsules is the prostatic plexus.

The prostate is situated between the rectum and the symphysis pubis, lying immediately in front of the former, and about three-quarters of an inch behind and below the latter. It is also one and one-half inches from the anus.

The function of the prostate is to secrete a milky fluid containing molecular matter, squamous and columnar epithelium, and granular nuclei.

The usual way of examining a prostate is by the rectum, the gland being found an inch and a half from the anus anteriorly, where its size, consistence and outline can be noticed.

DISEASES OF THE PROSTATE.

Acute prostatitis: This affection usually occurs as a complication of urethritis, and is caused by an extension of the disease along the prostate ducts from the prostatic urethra, or to the passage of instruments through this portion of the canal.

There are two varieties of this affection, the follicular and the diffuse. In the former there is a localized pain, increased on defecation, and frequent micturition, accompanied by tenesmus. Rectal examination discloses localized areas of tenderness. In the diffuse form, the latter variety, these symptoms are much increased in severity, and there is a sense of fullness in the deep perineum and a moderate elevation of temperature. Rectal examination shows the prostate to be large and tender.

The latter form usually ends in resolution, but at times an abscess may develop. In the case of a development of an abscess there may be a chill and elevation of temperature, although the pain and the feeling of fullness may diminish. These abscesses usually rupture in the urethra or rectum, although they may extend to the surrounding tissue, causing an extensive cellulitis.

The treatment of these cases consists in rest in bed, suppositories of morphin and belladonna for the pain and tenesmus, saline laxatives to keep the bowels open, and hot sitz baths. Hot rectal douches of saline solution are of great value in this condition, although many advocate the application of cold by means of a prostatic cooler introduced into the rectum, through which a stream of ice water is constantly passing.

In cases of abscess formation they should be opened through the perineum and drained. The results are usually favorable, resolution generally being the case, or a chronic prostatitis may follow. In the suppurative cases, however, a fistula into the urethra may result, or impotence due to the destruction of the seminal vesicles or their ducts. It may also result fatally from pyemia, due to septic absorption.

Chronic Prostatitis: In these cases the prostatic lobules and ducts and at times the seminal vesicles and their ducts, as well, are inflamed, thickened, and filled with catarrhal and suppurative products, and the surrounding tissue may also be hard and infiltrated. It is generally due to the same causes as acute prostatitis or is the sequela of them. Here we also have a fullness in the perineum, or a dull pain there, as well as in the glans penis. Urination is frequent and imperative, and perhaps bloody, and is followed by a thick, viscid, fluid, the contents of the distended prostatic ducts (prostatorrhœa). On rectal examination, the prostate is sensitive, and its vicinity is often hardened and stiff. The patients may be despondent or melancholic.

Treatment: Here suppositories of morphin and belladonna are also of service. Hot prostatic douches by the urethra and rectal irrigation at a temperature of from 102 deg. to 105 deg. afford the greatest relief. Cold sounds are highly recommended, or hot ones, to be followed quickly by the cold. Instillations of nitrate of silver of a strength of 1 to 20 grains to the ounce, applied to the prostatic urethra, are also of value. Counter irritation to the perineum gives great relief in some cases. Galvanism, by the means of a negative pole in the prostatic urethra, and the positive pole on the perineum, is also highly recommended by some. Stretching the prostatic urethra at times gives great relief. If an abscess forms it should be opened through the perineum and drained, as in acute cases.

Hypertrophy of the Prostate: This condition rarely occurs before the forty-fifth year, and generally after the fiftieth, though troublesome hypertrophy is not found in more than 8 or 9 per cent. of old men. In these enlargements, the fibrous and muscular elements seem to take more part than the glandular, and tend to arrange themselves into distinct nodules of spherical form. These growths tend to protrude where there is the least resistance, that is, on the urethral aspect. They are found to bulge out especially in the floor and sides of the urethral vesicle orifice, forming the so-called enlarged middle lobe. These growths may reach the size of an orange, and even larger.

As the prostate hypertrophies, the orifice of the urethra becomes elevated, the return flow of blood from the vesical veins is impeded by pressure upon the prostatic veins. This results in imperfect evacuation of the bladder, and consequently in residual urine. Cystitis develops, as is evidenced by a frequent desire to urinate (due to irritation of the neck of the bladder from venous congestion) and the other symptoms usually present. If the hypertrophy continues, these symptoms increase or become replaced by graver ones, and we have dilatation of the bladder, hypertrophy of the muscular and fibrous coats, and the formation of diverticulæ; dilatation of the ureters and pelves of the kidney; congestion and catarrhal inflammation of the entire urinary tract, with accumulation of the urinary and inflammatory products, and perhaps septic inflammation, extending from the bladder to the kidneys (pyelonephritis), resulting in chronic uremia and death.

Thus we see what conditions must be relieved in order to benefit our patient. His general health should be improved, his bowels kept regular, his skin active by warm baths, his clothing warm to prevent taking cold, and he should eat moderately and drink plenty of water. Internal urinary antiseptics, as the benzoates, the salicylates, boric acid, etc. Gaultheria, eucalyptol and urotropin are of great service.

Locally, sounds may be passed to stretch the prostate, if they do not irritate it. The residual urine should be removed by the catheter once or twice a day. The catheter should be of the soft rubber velvet-eyed variety, and should be kept aseptic by boiling. In case that these can not be made to pass, an elbowed catheter of soft rubber, or the woven variety, should be used.

In washing out the bladder in these cases, hot water should first be employed, after which a solution of boro-glyceride, one drachm to a quart of water, should be injected and allowed to remain. Solutions of bichloride of mercury and nitrate of silver, or permanganate of potash, may also be used. Sometimes, if the cystitis is very painful, drainage by a catheter, made fast in the bladder through the urethra, is of service, in which case it should be removed and cleansed twice a day. Perineal drainage is also at times resorted to. One of the troublesome complications of an enlarged prostate is retention of urine. This usually comes on after exposure to cold or excessive eating or drinking. In these cases a hypodermic injection of morphin and a hot bath will usually promote urination. If this fails, however, catheterization should be employed, care being taken not to empty the bladder in one sitting. If catheterization is impossible, the patient should be aspirated over the pubes, and about one-half of the urine in the bladder should be drawn off, after which he should be put to bed and hot applications over the pubes and the perineum resorted to. The reduction of the bladder tension and of the prostatic edema obtained in this way is usually sufficient to permit catheterization, or even free urination.

During the last few years the methods of a radical treatment for the cure of an enlarged prostate have been very much perfected and increased in number. Usually we have a graded plan of operation which may be presented as follows:

First—Resection of a portion of the vas deferens.

Second—Castration.

Third—Enucleation of the prostate.

And if these fail the formation of a permanent suprapubic fistula.

Much has been said about these different methods, and the advocates of each form of treatment seem satisfied that their own procedure is the best. Ligation of the vas deferens is certainly the easiest of these operations, while prostatectomy is the hardest. Castration, which is a simple procedure, and not considered dangerous, we are surprised to find has resulted in as large mortality as prostatectomy, without producing as good results in the cases which have survived. In comparing the mortality of ligation of the vas deferens with the latter two opera-

tions, the mortality should not be found to be as great, but the results as far as reduction of the prostate is concerned, are not as satisfactory. Notwithstanding this small mortality that ligation of the vas deferens is supposed to have, one of our most celebrated surgeons has had a death rate of 100 per cent. in the seven cases on which he has operated, and another has had 33 per cent.

The method of ligating the vas deferens is a very simple one. A small incision is made through the scrotum and the adjacent tissues are worked through until the vas is free. It is then hooked up and about an inch of it is cut away, between ligatures, after which the skin is sutured together and a light dressing applied.

The question of castration for enlarged prostate is a much more interesting one, and one which has occupied the attention of surgeons to a much greater degree. The mortality in this operation is surprisingly large, and it is safe to say that it is approximately 20 per cent.

The testicles are supposed to have but one function besides the purely sexual one, and that is conferring upon the bearer the masculine characteristics. It is claimed, however, that this power ceases in early life, after which only their sexual function remains. Therefore, in cases of castration in men of over fifty years of age, there is no danger of femininity developing.

Neurologists claim that the testes exert some influence on the nervous system even in old age, and Brown-Sequard showed that testicular extracts had a distinct power to increase the force in the nerve centres. It is certainly true that mental disturbances develop immediately after castration, and in ninety-nine cases reported by Cabot, eleven had some mental trouble after the operation. Six of these were maniacal, while five seemed to have lost their mental balance. The development of melancholia has been frequently noticed after this operation. Cabot, working upon the Brown-Sequard theory, tried injections of testiculin in half drachm doses in one of his cases who was mentally confused after the castration. Under this treatment his mental condition improved, but whenever it was omitted relapses took place, but a continuance of the treatment brought on an improved condition. It is also found that many patients after castration sink into a low condition and die slowly in a few weeks.

In these cases the autopsy generally shows that death was caused by pyelonephritis. No further deductions can be drawn from this excepting that the removal of the testes seems to lessen the vital force. Other men who have submitted to this operation and who have not developed symptoms of insanity or melancholia have at the same time shown certain marked nervous symptoms, such as flushes of heat and other hysterical symptoms that are commonly found in women at the times of the menopause.

It is interesting to consider the changes in the prostate which follow castration and lead to a diminution in its volume. I do not think that it has been yet determined exactly what the cause of this shrinkage is, but there are two principal theories, namely: First, it is due to an atrophy of the constituent parts of the glands; second, it is due to changes in the vascularity of the organ.

It is difficult to tell just what kind of a prostate we are going to encounter when we are contemplating operative procedure, our only guides being the symptoms of the patient, the length of his prostatic urethra as estimated by the catheter, and the shape and size of the prostate as felt through the rectum. We find, however, after observing a number of these cases that there are two varieties, the large succulent prostates, in which the lateral lobes are principally affected, and in which there is only a moderate cystitis, the other variety being where there is a large third lobe present or masses projecting into the bladder. The former of these varieties is favorable for castration, but the latter is not much affected by it, and better results are produced in these cases by prostatectomy.

Results of Castration: They are briefly as follows: About 80 per cent. recover from the operation, and of those who recover about 80 per cent. have improved. In the table of Dr. J. William White, of Philadelphia, sixty-one cases of recoveries, which had been followed up, showed in five cases no improvement; in one improvement, followed by a relapse; in four the catheter was still required; in twenty-seven the tension had been relieved, and in twenty-four there was great improvement.

The reason why the ligature of the vas deferens was advocated in case of hypertrophy of the prostate was on account of the

nervous symptoms following the removal of the testes, as it was thought that ligation of the vas, the efferent duct from the testes, would cause shrinkage in the same way. Cabot reports 21 of these cases, in which 7 died, that is 33 per cent., and of the remaining 14 only 7 showed any marked improvement.

The operation of castration does not present anything new or interesting. It simply consists in cutting down to the cord just below the outer abdominal ring, shelling out the testicle, cutting through the cord and ligating the three arteries separately. Both testes may be removed from one incision or from two separate incisions, as the operator chooses.

Prostatectomy: Prostatectomy is an operation which has been performed for some time, with rather a large mortality and not very gratifying results, although as genito-urinary surgery begins to develop into a more exact specialty, the technique of the operation has been greatly improved and many different methods have been devised for performing this operation. The class of cases in which prostatectomy is employed is not in the large and succulent prostates in which we have advocated castration, but rather where a large third lobe exists or there are masses projecting into the bladder. The class of cases demanding this operation is, where for the reason already stated, there is nearly a complete retention of urine and the patient has to depend almost entirely upon the catheter, also when the tenesmus and irritability of the bladder is so great that catheterization and washing out of the bladder are not able to relieve it. Again when the cystitis is very marked or troublesome, and when hematuria is a frequent symptom. An increasing amount of residual urine is another urgent cause, or when catheterization is followed by hemorrhages or bad attacks of cystitis. In performing this operation it is necessary to remove as much of the prostatic enlargement as possible, at the same time injuring the soft parts as little as possible. Drainage is a very important matter of the treatment, and should be carefully considered and thoroughly carried out. The old operation where, after a suprapubic cystotomy, small pieces were dug out with the finger nail, is not now considered radical, but simply palliative. The operations performed for the removal of the prostate are the suprapubic, the perineal and the combined, and the results are a mortality of about 20

per cent. The best two operations with which I am familiar are the Alexander and the Nicoll. In the Alexander method a suprapubic incision is made and retraction sutures are passed through the bladder wall. The patient is then put in the lithotomy position and a grooved staff is passed into the bladder through the urethra and an external perineal urethrotomy is performed through the membranous portion of the urethra to the apex of the prostate gland. The fingers of the left hand are then passed into the bladder through the suprapubic wound, by means of which the prostate is pressed down into the perineum. With the forefinger of the right hand the fibrous sheath over the prostate is broken into by the finger and the capsule entered. The entire prostate is shelled out from within its sheath by a digital dissection. The mucous membrane of the bladder and prostatic urethra is stripped up from the parts to be removed, but is not opened. The lateral lobes are at first removed, after which the middle enlargement or tumors can be pressed down into the perineal wound and enucleated in the same manner. After removal of the prostatic growths a perineal tube is passed into the bladder and a rubber drainage tube is inserted suprapubically. The retraction sutures are removed and the bladder allowed to drop back behind the pubes. The suprapubic wound is closed above and below the drainage tube. The after-treatment consists in the daily washing out of the bladder by injecting the fluid through the suprapubic tube. The upper tube is removed on the fourth day and the lower tube on the seventh day, after which sounds are passed every five days until the perineal wound is closed.

In Nicoll's method, the suprapubic incision is the same, and the bladder is then attached to the skin by four stitches. The patient is brought into the lithotomy position, a sound is passed into the bladder, and a vertical incision is made down to the prostate. The assistant then puts his finger into the bladder and presses the prostate up into the wound. A second incision is then made at the lower extremity of the first at right angles to it, forming a T, and extending up between the rectum and the prostate. Two fingers of the left hand are then passed into the bladder suprapubically to press the prostate into the incision. The capsule of the prostate is then cut through and pushed away on either side. The prostate is then enucleated with the finger

of the right hand, assisted, perhaps, by a periosteum elevator or a Volkman spoon without wounding the urethra or bladder. In the after-treatment, Nicoll recommends passing a *coudé* catheter into the bladder and tying it in, while he packs the perineum with gauze. He then takes the stitches out above the pubes and lets it fall back again.

One of the first operations performed was that of McGill. He opened the bladder suprapubically, cut through the mucous membrane over the prostate with a scissors, and enucleated as much as possible, partly by the finger and partly by the forceps.

Fuller's operation is a modification of this operation, and is much more complete. He opens the bladder, suprapubically, and cuts through the mucous membrane to the prostate with a pair of rough serrated scissors, the cut being about an inch and a half in length. The fore finger is then slipped into this vesical hole, while the fist of the other hand makes firm counter pressure against the perineum. The counter pressure brings the growth well into the reach of the forefinger, which is employed all the time in enucleating the prostatic growth *en masse* or piecemeal, as the case may be. A perineal section is then made and a large sized soft rubber tube is passed through the perineal cut, and the cut through which the prostate was enucleated, into the bladder. Hot water irrigation is then used, and a suprapubic drainage tube is passed in and allowed to remain in the bladder for four or five days, the remainder of the wound having been closed.

Von Dittel's method consists in making an incision starting from the coccyx and extending along the median line to the anus, then turning to the right of the anus and making a semi-circular incision terminating in the perineal raphé in front of the anus. The rectum is then torn from the prostate and the field of operation is brought into view.

Kocher's method: He makes a curved incision from the tuberosity of the ischium going around as far as the bulb of the urethra and then to the tuberosity of the ischium on the other side. From the methods just reported, the results of the Fuller and Kocher methods seem to be the best, although personally for the simplicity of the technique and the thoroughness of the operation I prefer the Alexander.

In conclusion I would say that in comparing prostatectomy

with castration I do not think as yet a fair comparison can be made. It is true that the mortality is about the same, but I do not think that the cases operated on by prostatectomy have usually been in as an advanced condition as those in which castration has been performed.

Remarks on Bottini's Operation: Before closing my remarks on the radical cure of hypertrophy of the prostate I feel that something ought to be said about a very important instrument, the Bottini galvano-caustic incisor, which has just come into prominence again through certain improvements that have been made in it by Freudenburg, of Berlin.

This instrument resembles closely a lithotrite with two arms at the end, a male and a female. The male arm is four-fifths of an inch in length and is made of iridio-platinum, as it requires a less amount of electricity to bring this substance to the required degree of heat. It is connected with a galvano-caustic battery and is controlled by a wheel on the handle of the instrument, the turning of which separates it from the female and draws it along the shaft for a limited distance toward the handle. There is also an apparatus connected with the instrument which keeps it cool and thus prevents it from burning the other tissues excepting the prostate with which it comes in contact.

The steps of the operation are as follows: A cystoscopic examination is first made to explore the bladder and the vicinity of the prostate. Rectal and urethral examinations are also made to estimate the size of the gland. The bladder is then emptied and washed out, and a solution of cocain is injected into the prostatic urethra. The instrument is then introduced through the urethra into the bladder, and the female blade is hooked over the base of the prostate. The current is then turned on and the male blade is drawn through the prostate one or more times by turning the wheel in the end of the instrument, the order usually being first through the upper (anterior) surface, next through the lower (posterior) surface and then through the lateral lobe, which is the larger; the other lateral lobe may be incised if necessary. This burns a groove through the prostate one-half inch deep and about one inch long, the length of the incision being estimated by a regular scale upon the instrument.

This operation can be performed in five minutes. There is

very little reaction, and the most serious complication that can arise is a hemorrhage. Bottini reported eighty cases, in none of which had a serious hemorrhage occurred. By this means patients over eighty years of age can be operated upon and are able to urinate spontaneously shortly after the operation. Very surprising results of this operation have been reported, and they are of such a rosy hue that, if true, it should be the operation of selection in all cases of obstructive hypertrophy.

Permanent Fistula: In cases of very advanced prostatic hypertrophy with complications, a permanent fistula can be made suprapubically. This is preferred to a perineal fistula, as it is more easily endured and managed by the patient. A soft rubber tube is worn through this opening. The cystitis and prostatic edema subside in a measure under this method of drainage, so that sometimes spontaneous urination or easy catheterization follows in a few weeks.

Tumors of the Prostate: Papilloma has been seen in this locality, generally arising from the vesicular surface.

Malignant Growths of the Prostate: These may arise with primary tumors by extension from adjacent organs, or by infection (metastasis) from some distant point. Carcinoma usually occurs in patients over fifty, while sarcomas are at times found in young boys. Palliative treatment and suprapubic drainage is about all that can be done for these cases. The operation has been performed ten times for removal of these growths; in every case death followed in a few days or a few months.

Cysts of the Prostate: Hydatids, cystic dilatation of the prostatic urethra, and cysts due to distention of occluded prostatic glands at times occur and are treated accordingly.

THE UNRELIABILITY OF A METHOD CONSIDERED GERMICIDAL.

BY OTTO LERCH, A. M., M. D., PH. D., NEW ORLEANS, LA.

Being informed that it is quite a common practice in the office of the dentist, surgeon and general practitioner to sterilize, or rather attempt to sterilize the instruments to be used in operations of dentistry and of minor surgery, by dipping them once

or several times in absolute alcohol, and then burning the alcohol by drawing the instrument lightly through the flame of a Bunsen burner or an alcohol lamp, I determined to test the efficiency of this method.

The idea which has led to the adoption of this method in common practice is, no doubt, that the alcohol would penetrate the small crevices and saturate the infectious matter left upon the instrument and that by burning the alcohol enough heat would be developed if not entirely to burn up the micro-organisms at least to completely destroy their vitality. It is a thought that seems very reasonable, and I was rather disappointed to find that the experiments conducted in this direction furnished but negative results.

A scalpel in use in the laboratory, and yet in good condition, was infected by spreading over its blade a very thin layer of pyogenic bacteria. The instrument was, when air-dried, dipped in alcohol, drawn lightly through the flame of a Bunsen burner and the alcohol dried off. The blade of the scalpel thus prepared was then stirred in sterilized bouillon contained in a test tube, this plugged with cotton and kept in the incubator at a temperature of 37.5 deg. F. A second scalpel, after being treated like the first, was drawn over nutrient agar-agar in a test tube and kept with No. 1. After twenty-four hours not a trace of growth could be found upon the agar; the bouillon appeared slightly clouded. After forty-eight hours I found growth upon the agar, and the bouillon examined in hanging drop was swarming with bacteria.

For a second experiment three scalpels were used in the following manner:

The instruments were infected with a culture of pyogenic bacteria, as described. With No. I the first experiment was repeated in all its details. No. II was twice dipped in alcohol and the alcohol twice burnt off, and No. III was three times dipped in alcohol and the alcohol was burnt off three times before using it upon agar and in bouillon, an agar-agar tube and a bouillon tube being inoculated with each instrument. Six culture tubes were thus prepared, marked I, II, III. After an exposure of forty-eight hours in the incubator all showed, without an exception, bacterial growths.

For further study, three scalpels were selected from a dis-

secting case that had been in use three days previous to the experiment, and treated as above with the alcohol; afterward six culture tubes containing nutrient agar-agar and bouillon were inoculated in the manner described and then put in the incubator. After forty-eight hours' exposure to a temperature of 37.5 deg. C., growths appeared in the culture tubes marked I and II, and after four days of exposure in the incubator a slight growth appeared in the culture tube marked III, the last tube inoculated with a scalpel that had been dipped in alcohol three times, the alcohol being burnt off each time.

For the next experiment four scalpels were infected with moistened room sweepings, with pus, putrid urine and sputum, respectively, and marked I, II, III and IV. The instruments had been but little in use in the laboratory, and their blades were smooth; particular care was taken to spread the infecting matter selected for this experiment in very thin layers upon their blades. After they had been prepared in the described manner—that is, after being air-dried, dipped in alcohol and the alcohol burnt off—they were stirred in sterilized bouillon, contained in test tubes, marked correspondingly I, II, III and IV. After three and four days the bouillon appeared cloudy, and an examination in the hanging drop culture showed a prolific bacterial growth in each instance.

For a final test, instruments were selected from a surgical pocket case. The instruments consisted entirely of metal—a scalpel, a small probe and one blade of an artery forceps. As culture media, I selected three agar-agar tubes and three gelatin tubes. The infecting matter was obtained from a bouillon culture inoculated with room sweepings. The method used was that of the former experiments with but a slight variation. The scalpel as being easiest to sterilize was dipped once in alcohol and burnt before using it upon the culture medium. This process was gone twice through with the probe and three times repeated with the artery forceps, which, on account of its roughened surface, is of course the most difficult to sterilize. The culture tubes were then exposed as before in the incubators and as was to be expected each of them showed a prolific growth of bacteria after forty-eight hours.

I believe that the experiments conducted and described above are amply sufficient to demonstrate the entire unreliability of a

method now frequently in use. Partly due to a coating of the bacteria and their spores with carbonized matter during the burning process protecting them from destruction, and partly due to the conducting power of the metal, which does not permit the temperature to rise to a point high enough to destroy bacterial life. The carbon is removed when the instruments are used and the bacteria are *set free*. A method thought to be trusted that has proven to be a failure is dangerous, and I believe, therefore, that the above described experiments will be found of interest. I consider it a pleasant duty to express my thanks to Dr. P. E. Archinard, who has furnished me with the opportunity of conducting these investigations in the bacteriological laboratory of the medical department of Tulane University of Louisiana, for courtesies received during the work and on many other occasions.

Clinical Reports.

INTUSSUSCEPTION, OR ILEUS, SUCCESSFULLY TREATED BY THE INTRODUCTION OF CARBONIC ACID GAS INTO THE RECTUM.

BY E. D. BEACH, M. D., NEW ORLEANS, LA.

Some years ago I reported in *THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* three cases of ileus treated successfully by the use of carbonic acid gas procured through the medium of seltz water put up in the siphon bottle. I now report a fourth case successfully treated in the same manner.

There is no special cause of ileus; it is an accident, and may be, and often is, caused from a fall, from vomiting, and often found in infancy without any apparent known cause. It is more often found in infancy and youth than in adults. I have never met with a case in persons in advanced life. Ileus is an invagination of the intestine within itself, and has always been considered a dangerous and fatal accident, but under the treatment I advance it is robbed of all its dangers.

The diagnosis of ileus is not difficult. It is characterized by

severe pain in the abdomen; if a child, screaming from the pain, constant vomiting, which finally becomes stercoraceous; nothing passes the bowels, not even gas, the large bowels having been emptied at the commencement of the invagination. Sometimes in children tenesmus is present and a lump can generally be felt in the abdomen near the iliac regions, oftener in the left than the right, where the invagination has taken place.

What led me to first use seltz water as a remedy for ileus was a case I was called to some fifteen years ago, a white boy, about eight years of age, who fell from the steps of a horse car from catching on as boys often do. After examining him I diagnosed ileus. I informed his parents of what his trouble was and my prognosis, death. Standing by the bedside, the following thoughts passed through my mind: What shall I do to relieve my little patient? I had read of gas being forced into the bowels by the rectum successfully. The thought came, I will give him both water and gas. As soon as the siphon came I detached the metal portions of the suction end of a Davidson's syringe and attached it to the nozzle of the seltz water bottle; after introducing the rectal tube into the bowel, previously placing around the pipe a piece of soft leather, so that I would be sure of making him retain the water and gas, the father raised the valve for a moment.

This was continued in that manner until he vomited, the father remarking: "Why, that injection is going through him." Letting loose my hold, there was a great burst of gas escaped—more, I thought, than the natural gas of the bowels. The boy appeared relieved. I gave him an opiate. He rested well all night, and at my morning visit I found him sitting up in bed playing marbles. Gave him light nourishment, but no medicine. The boy was relieved. In this boy's case a lump could be plainly felt in the abdomen, in the left iliac region.

My second case was an infant, about four months old, female. Lump could be plainly felt in the iliac region; child screaming with pain; thought first it was severe colic. Medicine did not relieve her; examining abdomen discovered the true cause of trouble; immediately ordered a bottle of seltz water, pursued the same course as with first case, and again successfully. She is now a miss of about sixteen.

My third case was a young man; pursued the same course, and again successfully.

My fourth and last case occurred in my own family. My grandson, aged 25 years, went on an excursion with brother and cousins, Wednesday, July 21, 1897. On their return, the same evening, he ate three fried oysters on the train, and after returning home, at 10 P. M., he ate quite heartily. He was awakened in the night, with nausea and vomiting. Treatment was given him and continued Thursday, but occasionally through the day vomited quite a quantity of healthy yellow bile; did not rest well Thursday night. Friday morning I was called to his room by his mother; had just vomited some very green bile, and complained of severe pain in the right iliac region. He suggested that he thought an enema would relieve him, which I gave, of soap and water, using a half-gallon fountain syringe full. Having no desire to pass it, again filled the bag, and after giving him about one-half its capacity, making in all about three quarts, he desired to have bowels move; while sitting on the commode he vomited very freely of stercoraceous matter. Upon examination found he had passed about one quart of water; it was barely colored, with some specks of fecal matter; pain still severe in right iliac region. I then saw that I had a case of ileus to deal with; sent out immediately for a bottle of seltz water, took off the rubber tube from the fountain syringe, placed it on the nozzle of the seltz water bottle, and it was ready for work. Directing him to place the syringe pipe in the rectum, I raised the valve and let about four ounces escape into the rectum, four ounces being as much as he could bear. After waiting a few moments, directing him to inform me as soon as he could bear more I again let about four ounces escape into the bowels, and so on, until the seltz water bottle was empty. In a short time, after commencing the use of the seltz water, he remarked, "I am feeling easier," but I went on until he was perfectly relieved. There was no more vomiting or nausea. Did not allow any food to be given until the next morning, when a cup of milk with coffee was given; shortly after, milk toast, gradually assuming normal diet; made a good recovery, and no further trouble. Friday night rested well, gas occasionally escaping from the bowels. Monday morning had natural action.

This last case certainly speaks well for the treatment, with such, to me, gratifying results.

There is great force from the seltz water in passing from the siphon through the rubber tube. It will throw a stream from twenty-five to thirty feet, and with that force, if fully let in to the bowels, there might be danger of lacerating the intestines; therefore, but a small quantity should be allowed to escape each time, allowing time for the gas to be evolved from the water, as it is the gas we want, not the water. In my first cases, I am satisfied, it was too rapidly given, although successful. One or two ounces would be sufficient quantity to administer to a child, waiting each time for the gas to be evolved; for an adult three to four ounces.

At the present day we hear so much of appendicitis and operations for the same, sometimes successful, but oftener not successful in giving relief, that I have come to the conclusion they may often be ileus rather than appendicitis.

There is one difficulty in making use of the seltz water to obtain the gas, that in places remote from cities it might be impossible to obtain the seltz water. I would suggest, in the place of gas, pump air into the bowels, using an air pump, even one used by cyclists to inflate their rubber tires, by attaching to the pump a rubber tube with a return pipe, pumping into the bowels only a small quantity at a time, giving time for the air to pass into the ileum. Only a small quantity of gas or air is required to force back the invagination. I much prefer the gas. To my mind gas or air is the remedy for ileus, and if these, or either of them, are used, you will hear of fewer deaths from so-called appendicitis.

MULTIPLE BENIGN CYSTIC EPITHELIOMATA.*

BY ISADORE DYER, PH. B., M. D.,

Professor of Dermatology, New Orleans Polyclinic; Lecturer and Clinical Instructor on Diseases of the Skin, Medical Department Tulane University; Dermatologist to Charity Hospital, etc.

The profession seems slow to recognize *benign* epitheliomata, since a malignant course and termination are ordinarily associated with epitheliomata as with carcinomata and sarcomata.

* Read before the Orleans Parish Medical Society.

Many epitheliomata develop without giving evidence of any malignancy whatsoever, until they have been present for months, or even years. The microscope makes little differentiation between the severer and milder forms. We often see epitheliomata in persons past fifty producing little inconvenience, seldom spreading and requiring treatment alone for the cosmetic disturbance. To the general practitioner these seem insignificant and are recognized as "scaling moles" or "superficial warts."

Classed with the new growths "Benign Cystic Epitheliomata" are characterized by certain well-defined tumors. Beginning as small papules, these gradually increase in size until, in the larger lesions, they may be half an inch in diameter. Little or no inconvenience is felt from the lesions, while the general health seems to be in nowise affected. The increase in the number of the lesions and the cosmetic annoyance determine the desire for treatment. Different observers describe the lesions of cystic epitheliomata differently. Found usually on the face, shoulders, arms, hands and legs, these lesions may have any or all of these localizations. The forehead, eyelids, root of nose, cheeks, chin, interpalpebral spaces and ears are particular sites.

The lesions are discrete, grouped irregularly, or confluent. The typical tumor is translucent, pearly, bluish, pink or a light brown in color. Fuller development may show points of yellow, or a waxy white. The tumors are solid to the touch, tense and shiny, movable with and in the skin, in which they are imbedded, though elevated. The appearance of whitish, milium-like bodies suggests the cystic nature of the tumor, and these are quite common in the larger lesions. Opinion differs as to the etiologic factor in this condition. Contagion, however, is eliminated, while heredity, or an embryonic or congenital origin, is usually conceded. Developing slowly over a period of years with no tendency to a malignant process, while disintegration is followed by a simple healing process, the benign character of these new growths is argued. That they are epitheliomata has been sufficiently proven by the several observers whose work has made the diagnosis.*

*Fordyce, *Morrow's System*, 1894, p. 620; Brooke, *British Journ. Derm.*, 1892, IV, 26, 286; J. C. White and J. T. Bowen, *Trans. Amer. Derm. Association*, 1894, p. 70, etc.

With this introduction I desire to report a typical case in point. In 1892† I reported: "A Case of Lupus Erythematosus of Face and Body, with Superinduced Epitheliomata of the Face." The patient was treated from time to time according to this diagnosis. The lesions resembled, at the time, the discoid type of lupus erythematosus. I lost sight of the patient for nearly two years. Then he was admitted to the Charity Hospital, in New Orleans, in my service. I saw the error of my first diagnosis, and now, after an observation extending over months, beg to report the case correctly:

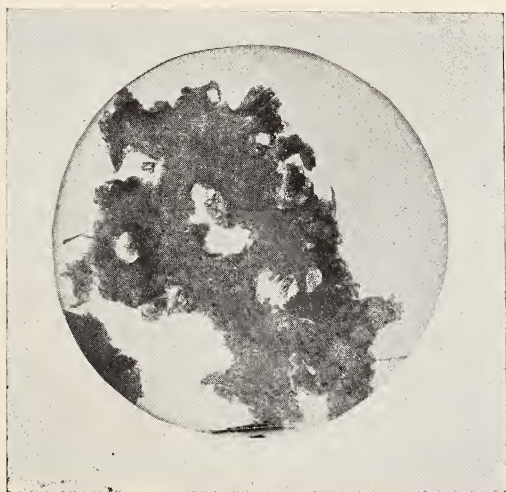
S. R., male, aged 55. Has always lived in Louisiana. The disease began eighteen years ago on the left temporal region with only one lesion. Within the past ten years other lesions have developed gradually over the face and body, but particularly on the face. These *always began with a scaling spot*. There was no history of an antecedent eruption. The general health of the patient has always been good. There is no family history of cancer. The father lived to be fifty-eight, and died of alcoholism; the mother died of yellow fever at the age of thirty-seven; five sisters living, all healthy, the eldest being about fifty-eight.

The patient, a French Creole, has always led an active life. He served in the Confederate army during the entire Civil War. He suffered no injury, however, during this service. For the past twenty years has worked on a plantation. The patient has been under observation over a period of five years, during which time new lesions have continued to develop; while the general tone of the patient's health has scarcely changed. From time to time lesions have been removed with the curette and cautery (Paquelin), but new lesions rapidly took their place. The operation was in every instance followed by a clean, healthy scarring.

Status Presens.—The eruption finds localization upon the face neck, chest and back. Most of the eruption is upon the face. Here the lesions occur on the forehead, cheeks, around the eyes, on the sides of the nose, at the angles of the jaws and on the ears.

The arrangement is irregular, in groups, for the most part, while single lesions are not uncommon. On the right cheek sev-

† *Daniels Tex. Med. Journ.*



**Case of Benign Cystic Epitheliomata with Photo-
Micrograph of Section (low power).**

eral lesions have become confluent, and have broken down, crusting and exudating. Scarring bears evidence of previous operations, and some of the natural elimination and disposition of the lesions by their own disintegration. The scars are all atrophic.

In size, the lesions vary from a pin's head to a half hazelnut, the most of them, however, being about as large as a split pea. Originally all are spheroidal in shape, distinctly nodosities or tubercles, but the older lesions are flattened down on top, and tend to break down and crust. The color is from a waxy white to a purple, with all gradations of color between. The newer lesions are the whiter in color.

In consistency the lesions are gelatinous to the touch, compressible and granular, as it were, while blood vessels course over some. Here and there the tumor is seen to consist of closely aggregated cysts, which seem to contain a semi-transparent fluid. On pricking these, from some a clear fluid exudes, while from others there is only a little blood. From others yet, a distinct gelatinous substance exudes, which is soft and is easily mashed between the fingers. Here and there a cyst is found which has become pustular, but this is quite uncommon.

On the right cheek there is a large lesion in course of disintegration, showing the nature of the resolution in these cases. This began to break down at the cystic points, having a honey-combed appearance. From the orifices a thick fluid exuded. At present the whole centre has sloughed away, leaving a rather clean ulcer, as deep as the thickness of the skin, already healing at the edges. Similar lesions in course of involution and disintegration are to be seen on both cheeks and over the *alæ nasi*. On the body the lesions are not as prone to a retrograde process; they are flatter and are characterized by more pronounced scaling. These processes have gone on during the whole period of my observation of the case. There is no glandular involvement at any point, notwithstanding the fact that at this time there are fully fifty lesions on the face, neck and body, eight or ten of which are in a process of self-destruction.

The case is both interesting and valuable for several reasons. The disease is rare and the cases reported have seldom been of so extensive a distribution. In this case the cystic character is well demonstrated; the benign nature is evidenced by the tendency of the lesions to self-destruction and self-elimination.

The case further shows, clinically, the association with the glands, both fat and sweat, in the cystic changes of some, while other lesions seem solely of epidermal origin. The only treatment adopted has been simple application of ichthyol ointment (3 per cent.), to prevent septic infection.

While the patient was in the hospital ward, he developed erysipelas twice, having been infected from cases in the same ward. On both occasions the erysipelas was limited to the right half of the face. After each attack there was a noticeable absence of retrogression or of dissolution of the lesions and there was no diminution in the number or size of any of the tumors present. There were no new lesions developed during nor immediately subsequent to these attacks.

Dr. O. L. Pothier, Pathologist to the Charity Hospital, has been good enough to examine for me a specimen removed from the right cheek near the ear. A photo-micrograph of this is herewith reproduced. The cystic character of the tumors is quite well shown, as well as the epithelial nature. In his report to me under date of September 13, 1897, the doctor states that he has "found the growth composed of epithelial tissue, containing quite a number of cysts. The latter were lined by epithelium assuming a lower form of cuboid cells. The contents as a rule of these cysts had disappeared. A few contained a transparent material containing also many epithelial cells. Was unable to find cell nests. It was impossible to determine where the growth originated, as sections examined seemed to be in an advanced stage of growth."

The meagreness of the pathologic observation must be explained by the fact that the lesions were difficult of removal owing to the gelatinous consistency, and owing also to the fact that the process of development and of retrogression was usually quite rapid.

DR. ALEXANDER BRIGGS, in a paper read before the Washington Co. (R. I.) Medical Society, advises the use of strontium salts instead of the sodium and, particularly, of the potassium.

He has frequently used the bromide, iodide and lactate with gratifying results.

Correspondence.

OUR NEW YORK LETTER.

At the last meeting of the New York Dermatological Society, Dr. Charles Warren Allen presented a case that was of peculiar interest. It was one of necrotising chilblain lesions.

Mr. De P. had the following peculiar eruptive lesions, which the doctor was forced to believe as a rare form of chilblain affection, although there were absent the usual features of erythema pernio. This was the fourth winter in which a recurrence of the affection had been noted. At the onset of cold weather, especially if the hands are washed in cold water or there is unusual exposure to the cold or damp a crop of small erythematous spots appear upon both hands and feet including, at times, the palms and soles, and soon they became tubercular or nodular, some appearing like firm imbedded nodules beneath the skin, others much elevated above the surface. There is no itchiness at times, while at others it is quite marked; or the lesion on the hands may itch, while those on the feet may not. Within the course of a few weeks, or perhaps months, a certain proportion of the lesions undergo a central necrosis, at times leaving a deep pit, and if, as is often the case, a crust forms and prevents the escape of the pus, a severe and painful inflammation follows. The central crust was usually of the "set in" or mortised variety characteristic of *acne varioliformis* or *acne necrotica*, remaining for weeks *in situ* and leaving a depressed cicatrix on falling. As the nodes disappeared they took on a purplish hue which persisted in a measure under finger pressure and some, at times, had been actually hemorrhagic. Some nodules present a waxy appearance of the central part and some look as though they were deep-seated pustules, but incision showed this not to be the case. The lesions come out in crops and do not extend above the ankles nor beyond the wrists. With the advent of warm weather they disappear. No treatment has so far had any more than an improving effect. The present attack began in November after noticing that cold water in the morning produced actual pain in the hand. Some tubercles soon became quite tender and a few suppurated in addition show-

ing a deep whitish necrotic process of very slow evolution. Some of the features suggest Brooke's keratosis follicularis contagiosa.

The condition is clearly one of erythema papulatum or tuberculum, excited by cold and succeeded by central necrosis. The speaker had seen but one other instance of the same affection. This occurred in a native of northern Russia. It began two years before he came to this country. The speaker saw him in his third attack during the papulo-tubercular stage. The whole skin surface of the hands was of a dusky hue. The feet were likewise affected and the history of the course pursued in previous attacks correspondent with that which he had related.

The case recalled an affection of the arms in a woman presented to the society by Dr. Elliot. The speaker had observed two similar instances, one in a man, the other in a woman. There was in these instances no question of cold as an etiologic factor and he was ignorant of the cause in his cases. In one of the cases a suppurating lesion in the arm was followed by a severe lymphaginitis.

A very interesting meeting of the New York Academy of Medicine was held on January 6. Dr. Beverly Robinson read a paper on "Clinical Observations on Malaria and Its Treatment." The principal point which he raised was that in many cases—especially the vague cases—of malaria one could not always find the plasmodium in the blood, and therefore one could not always place such great reliance upon this micro-organism as we are now taught that we should. In speaking of the treatment he referred to the use of Warburg's tincture; he thought that the good effects of this combination of drugs were due principally to the action of them upon the bowels and liver.

In the discussion that followed, Dr. Andrew H. Smith took a different view and said that he did not think we should call every case of irregular temperature one of malaria. He laid particular emphasis upon one point, and that was the periodicity of the temperature. He gave, as an illustration, the history of a case, to show that we are often deceived in these vague cases—that they should not be called malaria. The case referred to was that of a boy with irregular temperature, chills, etc., and the diagnosis of malaria was made. It was found later that the boy had an ischio-rectal abscess.

At the same meeting Dr. Henry Dwight Chapin read a paper

on "Clinical Observations Upon the Heart and Circulation in Diphtheria." The doctor referred to the slow heart, or bradycardia, which we may get in this disease. In one case that he reported the pulse fell to 28 beats to the minute; others he reported fell to 40 and to 50, etc., and they were invariably fatal. None of the well-known cardiac stimulants, such as digitalis, strophanthus, strychnin, alcohol, etc., had the slightest effect on the bradycardia.

In the discussion that followed, Dr. J. E. Winters said that he had always regarded this condition of bradycardia an exceedingly rare condition and that the first case he had seen occurred two years ago. But, since the introduction of antitoxin, this condition appears to have become more common. He regarded this condition as much more serious than the rapid pulse described. It was probably due to the administering of large doses of the antitoxin.

Dr. Henry W. Berg denied Dr. Winters' statement and said that this condition was seen years before the introduction of antitoxin; he did not think there was any relation between the two. He thought that we made a great mistake in finding such fault with antitoxin. In his hands the appearance of the rashes sometimes was a fault. The New York Board of Health are now working to reduce the liability to this rash by a system of filtering. These rashes now appear in about 35 per cent. of the cases and, by means of this process of filtration, its occurrence was being gradually diminished.

The Society of Medical Jurisprudence has recently drawn up a bill for presentation at the next Legislature, which has for its object the proper regulation of midwives. This bill provides that all midwives must be licensed by the regents of the university, and the license must be registered in the county in which they practice. Such licenses are to be issued only to persons of good moral character, who can read and write, and have given evidence of sufficient knowledge for the work they undertake.

This same attempt has been made before, but has never resulted in the enactment of a general law. Twenty-five years ago, at a meeting of the County Medical Society of New York, the same question came up and all but one voted *against interference*. The half truth that "labor is a physiologic process"

has wrought the mischief ; if this is true, lawyers tell us a woman has a right to call in whom she pleases to assist her. Labor ought to be a physiologic process, but we all know that it is not always such from the horrible fatality attending it in the hands of the uneducated and incompetent.

As a covert but prevalent abuse attending the practice of midwives is the prevalence of abortionists in their ranks. The desirability of absolutely prohibiting midwives from attending cases of abortion or miscarriage is to be carefully considered with a view of incorporating it in the bill above mentioned.

There is a committee engaged in collecting statistics which are to accompany the bill when introduced, and it is hoped that these statistics will furnish data sufficient to convince the Legislature of the necessity for the passage of this bill.

MOBILE, in addition to possessing many attractions, is unique in at least one respect. Its finest house is owned and occupied by a physician. Dr. Ketchum, the Dean of the Medical College Faculty, resides on the handsomest residence street of that city in a finer home than is possessed by any physician in many even larger places than Mobile.

To his energy and perseverance also is due the magnificent water supply of the Gulf City. It is brought from a distance of twelve miles, is pure, bright and sparkling, and comes with satisfactory pressure. Surely as this precious boon is more and more appreciated will future generations call him blessed.

It is already realized to-day that no one thing is more important for the health and welfare of a community than a good supply of agreeable and safe potable water. Dr. Ketchum has given such to Mobile, and that alone is a grander monument than stone or bronze could furnish.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

THE QUARANTINE CONVENTION IN MOBILE.

The brief account of the convention to be found in our News Items gives correctly the results of that important convention. Besides the interchange of opinions (legal and medical) and of experiences (principally personal and business) during the late outbreak, the only tangible outcome is embodied in the resolutions we print.

Those resolutions were merely a compromise. One proof of it is that they are being interpreted as being in their favor by those on either side of the burning questions of the day.

It may be asked, what were the burning questions? That is what we want to tell, and in so doing we shall tell only the truth and *as much of the truth as we know*. There was so much said, or suspected, about how the convention was formed, why it was called, and by what process the committees were composed, that we confess our inability to tell the *whole truth*.

The first burning question was as to whether the South desired national control of quarantine and sanitation. The State's rights men were not absent and some of them were quite eloquent, but we believe it will be generally admitted that, as far as deprecating all national interference is concerned, they were in a pronounced minority; in fact, it was soon evident that it was the consensus of opinion that pestilence from abroad should be kept out by the nation with a big N.

The second burning question, and the hotter, was how far national control should extend and in what manner it should be exhibited. In other words, there were two camps, supporting the Spooner bill and the Caffery bill respectively. The Spooner bill is Senate bill No. 3433, called for short the American Medical Association bill, although the said association has not yet

endorsed it; the Caffery bill being Senate bill No. 2680, granting additional quarantine powers to the Marine Hospital Service.

Although a valued contemporary lays stress upon the fact that the committee on resolutions stood ten for the Spooner bill and two for the Caffery measure, we are inclined to believe that this may have been due in part to the odd complexion of the committee, New York, Wisconsin and Illinois having equal representation upon it as Alabama, Mississippi and Louisiana. We do not mean that the former three States have not identical right of opinion or equality of interests in quarantine, but they are less directly interested in the entrance of yellow fever into the country, and are bound to feel in lesser degree the importance of being prepared at once to resist it. It is after all the great advantage of the Caffery bill, that it gives necessary authority to an already organized service which is right now in line with the work.

It is amusing, by the way, to note that one of the prominent arguments against the Caffery bill is that the care of the public health and of sick sailors is too much for one department, and that this point is raised *ad nauseam* by the advocates of the Spooner bill, which, reversing the matter without changing it, turns over the Marine Hospital Service to the health department.

At any rate, it was clearly demonstrated that the convention was pretty well divided on the question, for the vaunted majority report had to be withdrawn, as well as the minority report, which supported the Marine Hospital Service. Substitute resolutions, proposed by Congressman Clarke, of Mobile, were adopted without dissent. These resolutions were, as stated before, simply a compromise, endorsing neither bill and even throwing a sop to the State's rights men. This surely does not make it appear as if the Spooner bill people were in the majority.

Like with all compromises, there is bound to be an element of weakness in the resolutions, yet we believe the *entente* was wise, for in default of it, it is doubtful if the convention could have reached a conclusion.

As it stands, Congress is simply asked to frame certain laws in the interest of public health and sanitation, giving proper control to the Federal government, without encroaching upon the right of States and municipalities to self-protection, provided

they in turn do not obstruct commerce unreasonably. Details are left to the wisdom of Congress. This is just as well, for no bill would be or will be finally passed without modifications in both houses.

We believe the Caffery bill, which has already been amended, can best be made to suit present exigencies, and, for reasons already stated in our January editorial, we also believe it is the measure most likely to pass.

Should the bill have the necessary strength finally to become a law, we would suggest that it be made to provide for a change in the title of the service concerned. Let it be called the "Public Health and Marine Hospital Service." It would interfere with nothing and would give proper recognition to that branch of the service which is destined to be in time of overwhelming importance.

THANKS TO SUBSCRIBERS.

We desire, at the end of our second year of management of the JOURNAL, to express full appreciation to our subscribers for the many expressions of kindness they have communicated to us; also for the promptness with which they have forwarded their subscriptions, both past due and in advance.

The financial endorsements prove that the sentimental are heartfelt. As the times have not been unusually prosperous, we can be allowed to believe that the cash expresses an appreciation of the JOURNAL and the work that our collaborators and ourselves have done for it.

We thank our patrons, and can only add that our efforts will continue, that we will endeavor constantly to raise our standard, and that we already have under consideration improvements for our next volume, beginning in July.

New York is great, and we are proud of her, but does it not seem peculiar that her solitary delegate should have been given the same representation in framing the sense of the South Atlantic and Gulf States as all Mississippi, for instance?

Medical News Items.

A QUARANTINE CONVENTION of the South Atlantic and Gulf States was held in Mobile, Ala., February 9, 10 and 11, 1898. Dr. W. H. Sanders, the Health Officer of Mobile, Ala., was the originator.

The convention was composed of representatives from the States, health authorities, municipal governments, commercial bodies, railroads, steamboat interests, of the various States directly interested, and members by invitation.

A total of about one hundred and fifty lawyers, business men and doctors, named in the order of their respective numbers, formed the convention. Dr. C. P. Wilkinson, of Louisiana, was the permanent chairman, and Dr. H. A. Moody, of Mobile, the permanent secretary; Dr. Q. Kohnke and Dr. S. R. Oliphant were the representatives from Louisiana on the executive committee, and Dr. C. Chassaignac was vice president for Louisiana.

A number of interesting papers were read and a general interchange of opinion as to sanitation, quarantine and the part that the National government should take in the control of such matters followed.

The practical result of the convention can be summarized by the various resolutions which were finally passed as follows:

I. *Resolved*, That it is the sense of this Convention:

1. That Congress be requested to provide for a department of public health as soon as practicable.

2. That Congress should enact laws to provide for an efficient marine quarantine, to be uniform and impartial in its application to the different commercial ports of this country so as to give no one, or more of them, undue advantage over the others, to be enforced by the several States and municipal quarantine or health boards, if they will undertake so to do, leaving also to the States the power to prescribe and enforce additional reasonable safeguards of the health of their communities, provided that such State action shall not unreasonably obstruct commerce.

3. That Congress should aid the several States in establishing

and maintaining uniform, reasonable and efficient quarantine laws for affecting, but not regulating, interstate commerce, leaving to each State adequate power to protect, as it shall deem best, the lives and health of its people.

4. That Congress should leave exclusively to the States the regulation of their purely internal commerce and the provision of such quarantine and sanitary laws and regulations as they may deem advisable to that end.

5. That, in the framing of quarantine laws and regulations and in their enforcement, Congress should avail itself of the learning, experience and ability of the medical profession in the fullest measure possible, and especially by way of an advisory council.

II. *Resolved*, That it is the sense of this convention of the the States bordering on the South Atlantic and Gulf Coast, viz. : Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and Texas, that they should, as soon as practicable, meet in conference and prepare a code of rules and regulations for the purpose of controlling and preventing the spread of Yellow Fever and other contagious or infectious diseases; said rules and regulations to be uniformly accepted and honored by the several Health Boards of the States mentioned; and further to adopt a system of pratique and health certificates to be used in times of epidemic, to be likewise honored by the several Health Boards of the States named.

III. *Resolved*, That this convention call the proposed meeting of the health and quarantine officials of the South Atlantic and Gulf Coast States to be held in Atlanta, Georgia, during the first week in April, 1898; and

Resolved, That the chairman of this convention appoint a committee, to consist of one member from each State entitled to representation, whose duty it shall be to have charge of all necessary arrangements looking to hold the same.

IV. *Resolved* (1), That the Congress of the United States be requested to authorize the president to take such steps, by treaty or otherwise, as may aid in inducing the respective governments of the Inter-Tropical American ports to secure proper and adequate sanitation; together with the adoption by them of such restrictive measures as may be necessary to render such ports in

good sanitary condition and to prevent the introduction of yellow fever.

2. To provide for the maintenance of a medical force of this country in each such port, to give warning of the existence of yellow fever therein, with adequate power for the most efficient possible prevention of the communication of the disease therefrom; and that Congress be memorialized to make such appropriation as may be necessary to maintain a proper medical inspection service in Inter-Tropical American ports of sufficient importance to warrant such appointment.

3. That the Congress of the United States be memorialized to make a suitable appropriation and provide for the early calling of a conference of port sanitary authorities to deal with the subject of international quarantine and preventive sanitary regulations.

V. *Resolved*, That the convention respectfully recommend to the Congress of the United States that the following bill be passed:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. A commission of experts shall be appointed by the President for the purpose of making investigations relating to the cause and prevention of Yellow Fever.

SEC. 2. This commission shall consist of four expert bacteriologists, one to be detailed from among the medical officers of the army, one from among the medical officers of the navy, one from among the medical officers of the Marine Hospital Service, and one to be appointed from civil life.

SEC. 3. The President shall name one of the members of the commission as chairman, who shall direct the work of the commission and report to him from time to time the results attained. The headquarters of the commission shall be in Washington, D. C., and one or more of the members shall be detailed to conduct investigations in the city of Havana, Cuba, or in some other locality where Yellow Fever prevails.

SEC. 4. The medical officers of the army, the navy and the Marine Hospital Service detailed as members of this commission shall receive no compensation beyond their salaries. But during the time that they are necessarily absent from their proper stations in the performance of the duties imposed upon

them by this act, their necessary living and traveling expenses shall be paid from the appropriation made in this act. The civilian member of the commission shall receive, in addition to his necessary living and traveling expenses, six dollars per day during the time he is actually employed in prosecuting the investigation contemplated by this act.

SEC. 5. The sum of twenty thousand dollars is hereby appropriated, out of any money in the Treasury of the United States not otherwise appropriated, for carrying out the provisions of this act, and for the purchase of necessary instruments and material, for rent of a laboratory in Havana, Cuba, or elsewhere, and for other incidental expenses.

VI. WHEREAS, We are informed that a bill is now pending in the Senate of the United States, known as Senate Bill No. 1063, to regulate the practice of vivisection in the District of Columbia; and

WHEREAS, By its enactment we feel convinced that the progress of scientific knowledge, especially in the direction of the prevention of disease, would be limited and restricted, if not altogether prevented;

Therefore Be It Resolved, That it is the sense of this convention that the passage of the said Senate Bill No. 1063 would be unwise, injurious and prejudicial to the interest of sanitary science, and that the officers of this convention notify the Honorable the Senate of the United States accordingly.

VII. *Resolved*, That the secretary of this convention shall prepare and forward to the members of Congress of the South Atlantic and Gulf States copies of the resolutions this day adopted, duly certified with the signatures of the officers of this convention, and shall request the aforesaid members of Congress to bring the subject matter to the attention of their respective houses; and to prepare and introduce the requisite bills to effect the purpose of the resolutions, and to procure the passage thereof.

THE FOLLOWING physicians of the parish of Acadia met on Monday, February 7, and organized the Acadia Medical Association. Dr. N. B. Morris, Crowley, president; Dr. G. C. Mouton, of Rayne, first vice president; Dr. G. E. Brooks, second vice president; Dr. N. L. Hoffpauir, Crowley, secretary; Dr. H. C.

Webb, Crowley, treasurer; members, Drs. R. C. Webb, W. G. Young, F. R. Martin, L. C. Pulliam, S. T. Pulliam, C. H. Power, D. P. January and L. A. Clark.

Mayor Barry in fitting language welcomed the physicians and commended their action in organizing themselves.

The constitution and by-laws of the New Orleans Medical Association, with the proper modifications to suit the country practice, were adopted.

The following committees were appointed to serve during the ensuing year: Judiciary committee, F. R. Martin, chairman; W. G. Young, C. H. Power and L. A. Clark.

Scientific committee—W. G. Young, chairman; C. H. Powers, L. C. Pulliam.

Conference committee—D. P. January, chairman; G. C. Mouton and S. T. Pulliam.

A resolution was offered and adopted that the constitution and by-laws be published in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*, and the secretary notify every physician in the parish of Acadia, inviting them to become members of this association. It was also decided that a fee bill as adopted by the Acadia Physicians' Protective Association be posted in each and every physician's office.

After agreeing that the next annual meeting should be held in Crowley on the first Tuesday in 1899, the association adjourned until next regular meeting, which takes place on the first Tuesday in March.

DR. H. R. CARTER represented the Marine Hospital Service at the Quarantine Convention, and is now in charge of the New Orleans Station, to replace Dr. H. W. Sawtelle, who is transferred to Chicago. Dr. Sawtelle will be very much missed by his friends in the profession here, notwithstanding the fact that they will welcome Dr. Carter back to his old post.

THE MONTHLY CYCLOPEDIA OF PRACTICAL MEDICINE will replace the *Universal Medical Journal*. The introduction gives the reasons for this change, and an outline of an important modification which is also to be made in the plan of the *Annual of the Universal Medical Sciences*. This periodical is more pretentious than its predecessor and is both larger in size and in the number

of pages contained. We are pleased to compliment the editor upon this progressive step.

MARRIED.—Dr. G. C. Chandler and Miss Herise Gray, of Shreveport, were united in marriage in January. Felicitations are in order.

AT THE LAST MEETING OF THE BOARD OF ADMINISTRATORS of Charity Hospital, Dr. Erasmus D. Fenner was elected to the position of Assistant House Surgeon. This is to fill permanently the vacancy caused by the death of Dr. Julius Schmittle, whose post had in the meantime been ably filled by Dr. Jno. B. Elliot, Jr. Dr. Fenner is an ex-interne of the Charity Hospital and had lately filled the important position of assistant coroner of the parish of Orleans. His new position can be considered a promotion in every sense of the word and we congratulate him thereon.

DR. L. MARK FINNEY has been appointed assistant coroner by Dr. Lemonnier to succeed Dr. Fenner. Dr. Mark Finney is well known among the profession not only on account of his personality, but through his brother, Dr. James Finney, who has several times to his credit held official positions in this city.

DR. CHARLES JASPER BICKHAM died on Monday, February 14, 1898, in his sixty-eighth year. This announcement will probably prove a surprise to all but his personal friends, as it is not long since that we had the pleasure of announcing a partial recovery from a long illness, sufficient to allow him to resume active professional work.

Dr. Bickham was born at Covington, La., in 1830. He received the degree of M. A. from the Southwestern University, Texas, in 1854, and graduated in medicine in New Orleans in 1856. The year of his graduation he was chosen by Dr. Warren Stone as house surgeon of his hospital, and shortly after was appointed assistant house surgeon of the Charity Hospital. Subsequently he practised medicine in Shreveport, serving the Confederate cause during the civil war, after which he settled permanently in New Orleans. He was Demonstrator of Anatomy in the Medical Department of the University of Louisiana from 1867 to 1872; an Administrator of the Charity Hospital from 1882 to 1892; a member of the Louisiana State Board of

Health from 1894 to 1896, and served on the Board of Administrators of the Tulane Educational Fund from 1893 to 1896, having to resign the latter two positions on account of failing health.

Up to within a few years he was an active member of the Orleans Parish Medical Society and of the Louisiana State Medical Society, and at all times identified himself with every progressive movement in the profession. Not only was he very much loved by his clientèle, but he was universally esteemed by the profession. He was always kindly to the younger profession, who looked up to him; it was probably due to this, as well as to his eminent qualifications, that he at all times had a large consulting practice.

To his son, our friend Dr. Warren Bickham, as well as to the rest of the bereaved family, we extend our sincere sympathy.

The remains were taken to Sewanee, Tenn., for interment.

DR. EDMUND ANDREW MURPHY died on January 25 at his home in New Orleans. Dr. Murphy was born in Dublin, Ireland, in 1836, coming to this country at an early age. He graduated in medicine in Missouri, settling in New Orleans. Dr. Murphy was a member of the State Homeopathic Board of Medical Examiners at the time of his death. He leaves a wife and several children, among them Dr. R. A. Murphy.

THE STATE BOARD OF MEDICAL EXAMINERS have scored another and we trust a final victory over A. C. Fowler, who has been practising medicine in Gretna for several years, without diploma or license from the board. This case has been fought stubbornly for some time, and the decision of the Hon. Emile Rost perpetuates the temporary injunction, which had already been obtained, and imposes a fine of \$100 together with \$50 attorney's fees on the defendant. We congratulate Dr. Kennedy, the president, and his board upon this achievement, and we trust that this will spur them on to further corrections of similar evils in our city and State.

DR. DAWSON WILLIAMS has been appointed editor of the *British Medical Journal* to succeed the lamented Mr. Hart. The recognition is deserved. Dr. Williams had often discharged the

duties of editor, was the assistant editor and had been connected with the editorial department of the journal for seventeen years.

Mr. C. L. Taylor, a former sub-editor, was promoted to the post of assistant editor.

SERUM FOR THE TREATMENT OF PNEUMONIA is now being manufactured in America, the firm of John T. Milliken & Co., of St. Louis, having the credit of being the first to offer the same to the medical profession.

AT THE ORGANIZATION of the new State Board of Health of Louisiana, Dr. Edmond Souchon was elected president; Dr. L. F. Reynaud, vice president; Mr. Frank Zacharie, attorney; Dr. John Callan, chief sanitary inspector; Dr. S. J. Théard, assistant sanitary inspector.

We are pleased to note that Dr. G. F. Patton was held over as secretary. The minor officers were also not disturbed.

DR. WM. D. WHITE died in Abbeville, La., on February 24, 1898, at the age of 61. He was born in Tennessee and was a medical graduate of that State, but removed to Louisiana right after getting his diploma. He was noted not only as a successful practitioner, but as an enterprising citizen and a philanthropist.

Abstracts, Extracts and Miscellany

Department of Obstetrics and Gynecology.

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

Vedeler (*Centralblatt für Gynak.*, No. 26, 1897) reports his investigation of 310 sterile women, all of which had been married more than one year, seventy-two had been married ten or more years, and the average duration of married life in the

remaining was three years. The examination of fifty of the husbands of these women determined that thirty-eight surely had had gonorrhœa, and it was also determined that thirty-four (68 per cent.) of these had infected their wives. He says if it can be concluded that the result of the examination of these fifty sterile marriages be correct, then 235 of the 310 husbands must have had gonorrhœa, and also that 210 wives were infected. That this approaches the truth is shown in that, in 198 (44 per cent.) of the 310 women examined, the same inflammatory signs of gonorrhœa were found as in the above thirty-four, whose husbands undoubtedly had had gonorrhœa.—*University Medical Magazine*.

DR. EMILE RIES CONCLUDES that the nodular forms of tubular disease have been too readily recognized as inflammatory products, and lays stress on the discovery of Von Recklinghausen that Wolffian relics are to be found not only in the mesosalpinx, but also in the substance of the Fallopian tube. He has been able to recognize several forms of the disease and has arranged them according to their histology into several classes. Some cases are the result of salpingitis, while others are attributed to epithelial or mesoblastic changes. Dr. Ries doubts the doctrine of tubal decidua in extra-uterine pregnancy, and claims that ectopic gestation, abdominal or tubal, produces epithelioid formations by causing the formation of pseudo-membranes and not by irritation as is usually believed.—*Experimental Medicine*.

COMPARATIVE INDICATIONS FOR CLASSIC CESAREAN SECTION AND PORRO'S MODIFICATION.—In concluding a paper on this subject, Carstens adds the following rules:

1. Cases operated upon at private houses with poor facilities and by inexperienced abdominal surgeons should be subjected to the Porro operation, the extraperitoneal clamp method being used.
2. Cases of deformed pelvis, perhaps requiring a similar operation in the future, should be subjected to the Porro operation, even if operated upon in a well equipped hospital, unless the patient decides otherwise.
3. Cases requiring abdominal section on account of removal of tumors only should be subjected to classic Cesarean section,

if the operation can be performed in a hospital or in a private house where all proper facilities can be obtained.

Classic Cesarean section should also be performed if the patient desires it, no matter what the future may bring forth.—*Journal American Medical Association.*

RECENTLY DR. GEO. MAILETT REPORTED to the New York Obstetrical Society a case of dystocia due to a large tumor filling the pelvic cavity and crowding the uterus up so that the cervix was way up under the symphysis. The patient was placed in the Trendelenberg position obtained in her bed by means of a chair turned upside down. The tumor was pushed up out of the way and the woman delivered *per vaginam* of a live child. Three months later he removed the tumor, which “appears to be a dermoid cyst coalesced with a fibroid. It was attached by a pedicle to the back of the uterus and joined to the ovary on the right side.”—*Am. Gyn. and Obst. Journal*, February, 1898.

WHILE DISCUSSING FIBROID TUMORS of the Uterus at a recent meeting of the New York Obstetrical Society, Dr. Polk said: “In regard to the medical treatment of these cases, I wish to refer to the use of thyroid extract. During the last year I have employed it in fifteen cases and have obtained good results in all but one, although these results were not equally good in all. In four of these cases the impression made upon me was that there had been a distinct diminution in size. It should be begun early and continued long—in fact, indefinitely.” He generally gives about 2½ grains in twenty-four hours.—*Ibid.*

Dr. LUDWIG PICK HAS FOUND that infection by the bacterium *coli commune* is very rare in comparison with other bacteria, having found it in only four of 122 cases of pyosalpinx, only twice in seventeen cases of non-tuberculous peritonitis, and twice in 247 cases of puerperal sepsis with fever. Therefore in 423 gynecological and puerperal cases the bacterium *coli commune* was found in only nine.

In answer to the question, Does the course of the disease give any indication of its origin? Dr. Pick says: “If in any infectious disease the temperature shows decided and regular remissions this may be an indication of the presence of strepto-

cocci." The temperature shows no similar characteristic indication in bacterium coli commune infection. The production of gas is not limited to this bacillus and is not pathognomonic. Infection of this type is characterized more by the absence than by the presence of symptoms. Therefore the course of the disease gives no indication of its origin.—Dr. Parvin, *American Journal of Obstetrics*.

DR. BOVÉE REPORTS A CASE OF retroperitoneal ectopic pregnancy at full term. The patient died thirteen days after the operation. The danger of waiting even a day after the condition is diagnosed is dwelt upon. Allusion is also made to another case, where it was supposed a cure had been wrought by electricity, from which a fetus was removed and the mother saved. In the first instance the pregnant tube ruptured into the folds of the broad ligament and continued to grow. The author calls attention to the fact that it would have been better for the woman if it had ruptured, as it most often does, into the abdomen. This would have produced symptoms of hemorrhage; requiring immediate interference. It is better to allow no woman to go a day longer than is required to recognize the condition, as nearly every case recovers, even when several quarts of blood is found in the abdomen, and nearly all die who go to full term. A history of sterility for several years was elicited in both cases, followed by irregular menstruation, and fainting spells at the time of rupture. According to Dr. Joseph Price, the child need not be considered, as it is always dead or deformed.—*Am. Journal of Obstetrics*.

DR. MARCY CONTENTS that the circular fibres of the vaginal mucous membrane are responsible for the majority of failures to cure vesico-vaginal fistulas. To obviate this he first refreshes the edges of the fistula, then splits the edges, and separates widely the bladder from the vagina. When this is accomplished, the bladder aperture is refreshed and united by a double row of continuous sutures of fine tendon, care being taken not to penetrate the mucous membrane. This is particularly applicable where a large portion of the vaginal vault has been lost, rendering approximation of the bladder wall comparatively easy and of uniform tension. The vaginal mucous membrane is then closed.—*Jour. of the Amer. Med. Assn.*

Department of General Medicine.

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

MALARIA AS A CAUSATIVE FACTOR IN OTHER DISEASES.—The following deductions are drawn from a long article written on this subject: first and foremost, that malaria is not the cause of so many evils as are attributed to it; secondly, that its favorite seats of attack after the blood and blood-making organs are the gastro-intestinal and central nervous system, and that other organs or systems are but rarely affected; thirdly, and not least important, that the cases supposed to be malaria should in the future be more carefully studied, and that hereafter it should not be given as a cause of existing evils without sufficient and abundant proof. If the blood can not be examined, then only a full history of the case should be accepted, in which the fever, spleen and effects of treatment are carefully noted. The article is closed by the following quotation from Laveran's work:*

“The great frequency of accidents occurring in malaria has been much exaggerated; some observers have come to attribute numberless complications to it, and in the diseases of the warm countries see, so to speak, only various types of malaria. Authors have described an ophthalmia, a urethritis, a rheumatism, all due to malaria * * * All diseases may be associated with malaria; the condition of anemia and feebleness which it rapidly brings about cause of themselves a true predisposition for certain affections like pneumonia and dysentery * * * The error of those who attribute to malaria all the maladies which may complicate it, or even the greater number of those which have been observed in malarious countries, is certainly not small.”—RUPERT NORTON, *Am. Jour. Med. Sc.*, Feb., 1898.

COLLECTIONS OF WAX IN THE EAR REMOVED WITH SOLUTION OF HYDROGEN DIOXIDE.—Alberto Ricci, of Turin, has ascertained that the solution of hydrogen dioxide possesses the peculiar quality of rapidly disintegrating the obstructive masses of cerumen in the ear. It suffices to pour into the meatus auditorius

* *Traité des fièvres palustres*, Paris, 1884.

externus (auditory canal) a small quantity of the solution, and leave it for a few minutes in contact with the ceruminous plug. The latter is then most easily and safely removed by syringing with water, even though it were a hard concretion.—*L'Union Médicale du Canada, Janvier, 1898.*

OLIVE OIL IN THE TREATMENT OF YELLOW FEVER.—Owen F. Paget has attended more than 100 patients suffering from this disease, who were placed under the most disadvantageous circumstances, without deaths. He injects by the bowels from a quarter to half pint for the first four or five days, at intervals of from twelve to twenty-four hours. After the fifth day it may be given every second day, or left off entirely if the patient is having natural motions at least every twenty-four hours, and if the temperature is steadily falling. If there is great intestinal accumulation and the bowel is paralyzed, the oil should be given by the mouth, a cupful at a time, until the bowels respond; then the injection will suffice.—*The Lancet.*

[The principle which underlies all successful treatment in this disease—to limit the results of the infection at its point of greatest activity—is so frequently lost sight of that it is worth while to note the various methods of accomplishing this.—R. W. WILCOX in *Am. Jour. Med. Sc.*, February, 1898.]

BACTERIOLOGY OF ACUTE ARTICULAR RHEUMATISM.—Triboulet and Cayon (*Société Médicale des Hôpitaux*, 28 Jan., 1898) make a short review of their bacteriologic researches on articular rheumatism up to the present time, as follows:

1. In eleven consecutive cases of acute articular rheumatism they have found the same diplococcus already described in their report of six cases before the society on December 24, 1897.

2. It is seen in the blood of patients, by directly examining the blood under the microscope, at times in abundance.

3. Rheumatism is therefore a septicemia.

4. This septicemia is either simple or complicated, since two forms of organisms (diplococcus and fine bacillus), and even three forms as one case presented besides the bacillus of Achalme, are found in the same subject; but there is always a predominance of the diplococcus, which appears in all cases without exception.

5. Clinically, the diplococcus is chiefly responsible for the disease, since it causes the valvular lesions.

6. Indeed, the intravenous inoculation of a pure culture of diplococcus in a rabbit produced on the mitral valve vegetations which were large enough to cause death in twenty days by acute mitral stenosis, histo-bacteriologic examination proving beyond doubt that these vegetations were the result of the inoculated organism's activity.—*Gaz. hebdomadaire*, February 3, 1898.

Department of Therapeutics.

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

TREATMENT OF UNCONTROLLABLE VOMITING.—The *Journal des Praticiens* recommends the following:

℞	Menthol	gr. ii.
	Cocain hydrochlorate	gr. iv.
	Spts. vini, rect	℥ii.
	Syrupus	℥i.

M. Sig.—A small teaspoonful every half hour until several doses are taken.

CHILBLAINS.—Boeck recommends the following application:

℞	Resorecin.	
	Ichthyol.	
	Acid tannic	1 part.
	Aque	5 “

M. Sig.—To be painted on (after shaking) every night.

TREATMENT OF CORYZA.—During the first two or three weeks of coryza, the most useful of all preparations, according to H. B. Whitney (*N. Y. Med. News*) is a snuff, the principal ingredients of which are cocain and menthol:

℞	Cocain hydrochlorate	gr. iiss.
	Menthol	gr. iv.
	Boracic acid	℥ii.
	Powdered coffee	gr. viii.

M. Ft. Pulv.—Of this a small pinch is directed to be taken in each nostril every three or four hours. It gives great temporary relief.

This snuff may also be used with benefit after there is an abundant catarrhal secretion. It may with advantage be combined with internal use of gelsemium, or later, with atropin.

[A serious objection to such snuffs is the danger of leading to the cocain habit.—EDS.]

M. Courtade, at a meeting of the Société de Thérapeutique, stated that he had obtained on himself and on many of his colleagues excellent results in the treatment of coryza, by hot irrigations of water containing common salt, boric acid, or bicarbonate of soda. The irrigations must be given at a temperature of about 50 deg. C. by means of a siphon; a pint and a half of liquid will suffice under a pressure of eight to ten centimeters. A canula with a stopcock should be used to regulate the flow of the hot water, which must not be too abundant. The symptoms improve immediately. The tracheitis which follows the coryza is much less severe than usual. M. Courtade has also seen very good results from the use of these hot douches in naso-pharyngeal affections. Other practitioners have used a similar plan with the utmost success in warding off a cold. By using hot boric acid solution, by means of a nasal douche, at the very outset of the symptoms of coryza. A slight application has often arrested the further progress of the affection, and tracheitis has been entirely prevented, or has only been very slight.—*The Practitioner*.

TOXICITY OF URANIUM SALTS.—Apropos of the proposition to employ uranium nitrate in diabetes, Angermeyer (*Pharm. Zeit.*) calls attention to the fact that, notwithstanding the close chemical analogy between uranium and iron salts, the former are highly poisonous—half a milligram per kilogram of body weight being quite sufficient to cause death.—*The Druggists' Circular*.

LITHIUM SULPHICHTHYOLATE IN THE TREATMENT OF GOUT.—The *Centralblatt für die gesammte Therapie* attributes this formula to Bertini:

℞ Lithium sulphichthyolate..... .1 part
Vaseline..... .2 parts

M. This ointment is to be rubbed into the painful limb.—*N. Y. Med. Journal*.

TENDENCY TO BENDING OF THE BONES IN CRETINS UNDER THYROID TREATMENT.—In the *London Lancet* of October 2, 1897, T. Tolford Smith writes of this interesting question. He believes that one of the most marked among other signs of development produced in cretins during the administration of thyroid preparations is the rapid increase of growth in stature which takes place—an effect which is all the more striking when we remem-

ber that in these cases growth is almost at a standstill previous to treatment.

As a point in the practical treatment of these cases, the writer has found that during thyroid treatment this rapid growth of the skeleton leads to a softened condition of the bones resulting in a yielding and bending of those which have to bear weight; and as cretins under treatment become much more active and inclined to run about, this tendency to bending has to be guarded against.—*The Therapeutic Gazette*.

IODO-RESORCIN-SULPHONATE OF BISMUTH is recommended by Dr. R. Timmermann for hemorrhoids. It is used in suppositories. On account of its beneficial action on the intestinal mucous membrane, it is introduced to the medical profession under the euphonious name of *anusol*.

SANOSE.—This new albumin preparation recently put on the market is said to be a combination containing 80 per cent. albumose. It is a white powder, odorless and tasteless, forming an emulsion when stirred with water.

BISMUTH OXYIODOPYROGALLATE.—This new compound is described (*Pharm. Zeit.*) as a fine, amorphous, yellowish-red powder, insoluble in water and the usual solvents, and permanent in air and light. It is recommended as a powerful surgical antiseptic, not so readily decomposed as the other preparations heretofore used for the same purpose.

ATTENTION IS CALLED to the use of condensed milk in the preparation of emulsions of castor oil and cod-liver oil. The proportions are: Oil, 8; condensed milk, 3; syrup, 3; water, 2. The condensed milk is mixed in a mortar, the oil gradually added, and last of all the syrup and the water.—*Pharm. Zeit.*

HOW SERUM MAY BECOME CONTAMINATED WITH LEAD.—The *Jour. de Pharm.* reports that in an investigation as to the cause of poisoning by a subcutaneous injection of a sterilized serum it was found that when a solution of common salt, such as is used for diluting serums, was heated for twenty minutes to 120 deg. C. in flasks of various kinds of lead glass, the glass was acted upon

with the formation of lead chloride and sodium salicylate, the lead partially crystallizing out on cooling. Such a solution, used for diluting a serum, would cause a very serious lead poisoning, so much more so, as the lead enters directly into the circulation.

VALIDOL.—Schmersenski (*Pharm. Zeit.*) combines menthol and valerianic acid, giving to the product the name validol. It is recommended as a remedy in hysteria.

SALITANNOL.—A condensation product of salicylic and gallic acids has been so named. It is a white amorphous powder insoluble in the usual solvents. It is put forward as a surgical antiseptic.—*The Druggists' Circular.*

Miscellaneous.

INFLUENZA IN CHILDREN.—This at first generally believed harmless, but later observed as a dangerous disease, has, in a similar manner been carefully studied and improved. Experience has taught us that during epidemics more attention must be paid to the catarrhs of the respiratory tract so often complicating this disease, because we are at first unable to decide whether this complication is due to an infectious catarrh or to the beginning stage of influenza.

The period of invasion of influenza in children is, as a rule, gradual, as compared with the sudden onset in adults. The child becomes languid and cross; suffers from general malaise, loss of appetite accompanied with coryza and a dry cough. Nausea and vomiting also occur. After a few days, sometimes even as late as the eighth or tenth day, we become aware that these symptoms were those of the incubation stage. Then an irregular fever with chilliness appears. To the cough, hoarseness and dyspnea are added. The eyes become reddened and excessive lachrymation takes place. Sometimes convulsions and coma set in. Uncomplicated cases when they receive early attention are generally cured within four to six days. In these cases the convalescence is rapid. The extreme malaise so often

noticed in adults, while not as a rule absent in children, lasts only a few days.

The prognosis is good and the relative mortality low.

Authorities differ as to the necessity of internal medication in the treatment of influenza in children. Personally I have always observed a favorable influence exerted on the course of the disease by immediate internal medication; sometimes even succeeding in aborting the disease. Formerly I used quinin and in the "nervous form" of the disease salophen, and in some cases salicylate of sodium, phenacetin or lactophenin. In children nothing has given me such uniform, reliable and prompt results as salipyryn, whether used in the febrile-prodromal or initial stage of influenza, it being entirely free from any evil after-effects. I can only agree with V. Mosengeil, Békess, A. Hennig, Mäller-Breslau and many others, if I attribute an almost specific action to salipyryn in influenza of children. Salipyryn seems not only to weaken the toxic effects of the bacterium Pfeiffer on the organism, but also to increase the resistance of the body against invasion and also to diminish the streptococcus deposits so that lung and kidney complications become more seldom. The catarrh remains moderate, but the unpleasant symptoms, fever, headache, general malaise, are checked in their incipiency. The progressive tendency of influenza to extend to the bronchi and lungs also disappears.

To obtain good results, it is of prime importance, that salipyryn be given at once and in not too small doses. I generally prescribe for—

Small children (up to 5 years) 0.25 *pro dosi*.

Older children (5 to 10 years) 0.5 *pro dosi*.

Still older children (10 to 14 years) 1.0 *pro dosi*.

To be given three times a day in hot tea.

Generally, after two days, it suffices to use it only twice a day, and with this I continue three or four days after the beginning of convalescence; the child all the while being kept in bed.

Relapses do not occur, and the concomitant prostration soon disappears. If necessary, alcohol may be used to overcome the prostration.

The question may be raised whether all the cases were specific influenzal catarrh. I answer in the affirmative for the majority

of the cases, on account of their accompanying symptoms and, at the time, prevalent epidemic.

It is without doubt that, up to the present time, of all drugs used, with the exception of a few cases in which quinin is more suitable, salipyrin is the safest to prevent the outbreak of influenza where the infectious nature of the catarrh makes one at all suspicious.—FUERST, *Medizinal Zeitung*.

PRODUCTION OF PLASMATIC CELL JUICES—EXPERIMENTS IN IMMUNIZATION AND CLINICAL TREATMENT WITH THE PLASMATIC CELL JUICES OF BACTERIA.—These valuable papers, by Professor Buchner and Dr. Hahn respectively, appeared in the *Münchener Medicinische Wochenschrift*. Buchner reports on his method of obtaining the plasmatic cell contents, without recourse to chemical action, by the mechanical trituration of the moist germ mass, followed by expression of the magma thus obtained in a hydraulic press at 400 to 1500 atmospheres. This method was first applied to yeast cells, obtaining a clear yellow, slightly opalescent liquid, possessing a considerable proportion of albumin. This liquid was shown to be capable of producing alcoholic fermentation in the absence of living organisms. The depository of the fermentative action is a peculiar enzyme-like substance which is capable of acting independently of the living cell and which received the name *Zymase*. Moist, this substance undergoes alteration; the fermentative properties also disappear on storage; this has probably some connection with the existence of powerful digestive enzymes observed in the expressed juice, these giving rise to a species of auto-digestion. On the other hand dry zymase is permanent.

The next step was the production by the same method of the expressed juices of pathogenic bacteria with a view to studying their specific properties. The manufacture of these bodies, to which Buchner gives the name *Plasmins*, presupposes the dispelling of technical and biological difficulties.

Dr. Hahn experimented with three types of pathogenic bacteria: (1) The cholera or typhus-bacilli, which in guinea-pigs produce only acute and local infection; (2) anthrax-bacilli, or staphylococci, which give rise to acute general infection; and (3) tubercle-bacilli, which provoke chronic general infection.

The juice obtained by expressing cholera-bacilli (*cholera-*

plasmin) is strongly albuminous, the albumin behaving like a nucleo-albumin. To guinea-pigs it is toxic in a limited degree, the pigs being killed only by larger doses; the local action consists in an inflammatory infiltration. It is easy to immunize guinea-pigs, with the aid of of *cholerasplasmin*, against peritoneal infection with living cholera-bacteria, either by repeated small doses or by larger doses given at one time. This immunization is strictly specific and persists for three to four months. The destruction of the cholera vibrones in the organism of the animals immunized with the expressed juice proceeds amid the symptoms observed by Pfeiffer; and yet not only the exudate, but also the blood serum of these animals, possessed specific agglutinating properties. Very similar to the foregoing were the results with the *typhoplasmin*.

Hahn does not believe that there is any therapeutic use of cholerasplasmin with human beings, or at most for prophylactic injections.

The *typhoplasmin* could be used for therapeutic as well as immunizing purposes.

The experiments with the expressed juices of anthrax bacilli and staphylococci have shown that it will scarcely be possible to achieve with their aid a sure immunization against general infection. Though the animals treated succumbed somewhat later than the control animals, this fact could be explained by the elevation of bactericidal properties due to hyperleucocytosis.

The *tuberculoplasmin* is a clear, amber-yellow liquid, containing much coagulable albumin; decomposes hydrogen peroxide (in contradistinction to Koch's New Tuberculin), and may be stored for a considerable time in an ice chest without the development of germs by the addition of 20 per cent. glycerin and 5 per cent. common salt. With this preparation Hahn treated a number of guinea-pigs. Two weeks after inoculation he began injecting very small, gradually augmented doses, which produced moderate but distinct symptoms of fever, the injections being prolonged for months. Of seventeen guinea-pigs thus treated, three died before there was any possibility of a curative action; five others succumbed, in common with the control animals; but with four other guinea-pigs there was visible, despite the fact that death was not prevented, an anatomically lesser distribution or a reactive modification in the vicinity of

the tubercle. The remaining five animals have thus far survived the control pigs one and a half to two months. Thus, almost one-third of the series were preserved, and in view of the inborn susceptibility of guinea-pigs to the tubercle bacillus, this may be considered a not unfavorable result.

Investigations with the human subject would seem in order, especially as clinical tests thus far made have demonstrated the harmlessness of the remedy in human therapy, inasmuch as patients are commonly presented for treatment in an advanced stage and are complicated by secondary infections; and since it is not possible to inject into a human being a quantity proportionate to that given the test animal. But on the other hand, some benefit would be derived from the non-specific power of the *tuberculoplasmin* to produce hyperleucocytosis, whose favorable influence on experimental infections has been repeatedly emphasized.—*Therapeutische Monatshefte, January, 1898.*

THE ATTITUDE OF THE LATE NEW YORK CITY BOARD OF HEALTH toward the medical profession in two rather important respects was discussed at a meeting of the Clinical Society of the New York Post-Graduate Medical School and Hospital in January. Dr. George B. Fowler, who was a member of the old board, furnished the subject for the occasion in a paper entitled "Some Glimpses of the New York Board of Health," which he read. Dr. Fowler's paper explained in a full and lucid manner the methods used by the board in caring for the health of the city. It was in effect a report of the work done by the board and the results attained, notably the reduction of the death rate to 19.52 in a thousand.

The two points in Dr. Fowler's paper that were of special interest to those who heard it concerned the tuberculosis circulars sent out by the board some time ago, and the manufacture, selling and dispensing of diphtheria antitoxin and other products.

We shall not refer further in this article to this subject of what the board did in the matter of tuberculosis disease, or the question of what it may have thought of doing. A fair portion of the discussion turned on the board's mercantile transactions, and to that point we shall confine our attention at present.

Dr. A. M. Phelps said that the board should be thanked for the able work that had been done in its bacteriological depart-

ment, but when it engaged in commercial enterprises it struck a blow that was of serious import. Physicians did not all believe in the production and blending of antitoxin, tuberculin, etc., any more than they would believe that it was the business of the board of health to engage in the preparation and vending of milk and food supplies. They might as well say that they would form a trust to provide these things. The speaker did not believe for a moment that it was the business of the board of health to produce *tuberculin* and *antitoxin*, or to have a cow-pox farm. He believed that the board injured itself by entering upon *commercial enterprises*.—*New York Medical Journal*.

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 Compend of Diseases of Children. By MARCUS P. HATFIELD, A. M., M. D., Professor of Diseases of Children Northwestern University, Chicago. Second Edition. P. Blakiston & Co., Philadelphia.

Quiz compends are much alike in their arrangement, but Dr. Hatfield has handled a difficult subject with careful judgment. In some places, it is to be regretted that sufficient space has not been given to differentiation between troublesome conditions. This is particularly evident in the infectious diseases. Altogether the little book is commendable. DYER.

Inebriety, Its Source, Prevention and Cure. By CHARLES F. PALMER. F. H. Revell Company, New York, Chicago and Toronto, 1897.

This book is a logical presentation of the predisposition to, the acquirement of and the method of overcoming drunkenness.

The argument is advanced that heredity should determine by education and environment the status of the offspring in this regard. The accessories to the moral degradation are detailed with care and the suggestions for the training are equally clear. An excellent diagram in tabular form is appended, which clearly outlines the argument of the text. The book is well written.

DYER.

A Practical Treatise on Diseases of the Skin. By JOHN V. SHOEMAKER, M. D., LL.D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical School and Hospital of Philadelphia. Third Edition. D. Appleton & Co., New York, 1897.

The author of this book has materially revised his former second edition. The text shows many additions and the articles generally are even more comprehensive than before. The articles on the parasitic diseases are particularly useful. The same illustrations are used as in the second edition, with few, if any, additions; this is a marked fault in the book, as many of the plates are worn and the cuts are far from distinct. This, with the system of classification (that of Hebra) adopted, should be modified or corrected in another edition.

DYER.

A Practical Treatise on Sexual Disorders of the Male and Female. By ROBERT W. TAYLOR, M. D. Lea Bros. & Co., New York and Philadelphia.

Beginning with an unusually clear and satisfactory exposition of the anatomy, structure and physiology of the male sexual apparatus and of the physiology of the male sexual function, Dr. Taylor treats of the various forms of impotence in the male in a thorough and scientific manner. Careful consideration is next given to sterility in the male, to chronic conditions of the urethra, the prostate, the seminal vesicles. Spermatorrhea and sexual neurasthenia, with their various causes, are also studied. Sexual perversion receives a little attention, and, finally, less than seventy pages are devoted to sexual disorders of the female. The latter are not given adequate attention, and, as most of them are described in any good gynecologic treatise, we believe they might have been omitted with advantage; the work would have seemed better finished.

A proper understanding on the part of physicians in general of the descriptions and of the advice given by Dr. Taylor would prove of vast service to a number of unfortunates who are turned away as having nothing the matter with them, to become the prey of unscrupulous quacks. It would lead to one of two things: either these physicians would treat them scientifically and successfully or, if they did not want to take this trouble, they would see the necessity for guiding them to reputable specialists who could do them justice. C. C.

Diagnostic Urinalysis. By M. D. HOGE, M. D. Geo. M. West, Richmond, Va.

As an introductory, Dr. Hoge gives a brief *resumé* of discoveries relating to normal or abnormal constituents of the urine and of the histology of the urinary organs. The main purpose of the little volume is to describe the practical manner by which to detect the ordinary pathological conditions revealed by the urine. This is done intelligently, and in a way sufficient to render the work useful for reference. Calculated in great measure for the use of students, wide margins are left for the taking of notes. It can be obtained from the author. C. C.

Text-Book of Materia Medica for Nurses. Compiled by LAVINIA L. DOCK. Publishers: G. P. Putnam & Sons, New York.

The compiler has done her work well, and given due credit in the preface to the several standard works from which extracts are taken. The classification follows that used by Dr. Brunton and Dr. Brice. It is a pleasure to notice the introduction of the metric system in this edition; also the addition of a number of the most important new drugs. The popularity of the work is best attested by the fact that it has reached its third edition since 1890. As a guide to the study of materia medica by the nurse, the work is all that could be desired. STORCK.

Spinal Caries. By NOBLE SMITH, M. D. Second edition. London: Smith, Elder & Co., 1897.

This little monograph of 150 pages gives a general description of the disease, the symptoms and diagnosis and treatment of

spinal caries. It discusses also diseases with which caries may be confounded, and gives a chapter on obscure cases. Chapter 7 details a large number of cases, and the appendix adds some remarks on actinomycosis, and refers to the recent work of Calot on "Forced Reduction of the Deformity in Caries of the Spine." The work is one worth having in the library of any one who devotes any attention to spinal disease. The author might have taken the trouble, however, to spell properly the name of one who has done so much for this class of diseases. It is hardly recognizable as "Sayers." PARHAM.

Twentieth Century Practice. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D. In twenty volumes. Volume XII, "Mental Diseases, Childhood and Old Age." New York: William Wood & Co.. 1897.

The contributors to this volume are all foreigners and men of eminent standing in their specialties. The mere mention of their names from a reviewer is sufficient recommendation of this work—J. Boy-Teissier, of Marseilles; G. Fielding Blandford, of London; John Comby, of Paris; Cesare Lombroso, of Turin; Paul A. Sollier, of Paris. It is an important addition to the valuable series. P. E. A.

PUBLICATIONS RECEIVED.

American Year Book of Medicine and Surgery, edited by Geo. M. Gould, M. D.—W. B. Saunders, Philadelphia, 1898.

Text-Book on Surgery, by Jno. A. Wyeth, M. D.—D. Appleton & Co., New York, 1898.

Gout, Rheumatism and Allied Affections, by E. L. Gross, M. D., 1897.

American System of Practical Medicine, edited by A. L. Loomis, M. D., and W. G. Thompson, M. D.—Lea Bros. & Co., New York and Philadelphia, 1898.

The Diseases of the Conjunctiva, by Jno. H. Thompson, M. D.—Hudson-Kimberly Publishing Company, 1897.

Annual Report of the New York Post-Graduate Hospital, 1897.

Twentieth Century Practice, Vol. XIII, edited by Thos. L. Stedman, M. D.—Wm. Wood & Co., New York, 1898.

Elements of Clinical Diagnosis, by Dr. G. Klemperer.—The Macmillan Company, New York, 1898.

Transactions of the American Microscopical Society, 1897.

Treatise on the Diseases of Women, by Alex. J. O. Skene, M. D.—D. Appleton & Co., New York, 1898.

Orthopedic Surgery, by Jas. E. Moore, M. D.—W. B. Saunders, Philadelphia, 1898.

REPRINTS.

Electric Treatment in Gout, by Robt. Newman, M. D.

Anti-Streptococcus Serum, by C. P. Thomas, M. D.

Report of Two Cases, by W. S. Sims, M. D.

“*Deficient Excretion from Kidneys*,” etc., and *Diseases of the Skin*, by L. Duncan Buckley, M. D.

Present Status of Preventive Means Against Tuberculosis.—Urgent Need of Sanatoria for the Consumptive Poor, by S. A. Knopf, M. D.

Albumin Testing.—Urinary Antiseptics in Cystitis, by Arthur R. Elliott, M. D.

Three Practical Points in Fracture at the Elbow-Joint.—General Considerations Upon Major Anesthesia, etc.—Practical Points Upon Fracture of the Thigh-Bone, by Robt. M. Dawbarn, M. D.

Surgical Melange—Abdominal Incision for Ascites.—Appendicitis.—Craniectomies, by Merrill Ricketts, M. D.

Advantages of Vagino-Abdominal Section.—Improved Method for Removal of Intraligamentous Cyst, by Thos. H. Hawkins, M. D.

Value to the Public of State Medical Societies.—Acquired Umbilical Hernia.—Splitting the Kidney Capsule for Nephraigia.—Symptoms and Treatment of Hepatic Abscess.—Frequency of Stone in the White and Negro Races, by Geo. Ben Johnston, M. D.

Movable Kidney.—Ectropion of the Cervix in Nulliparæ.—New Method of Suturing in Celiotomy.—Technique of Operations for Laceration of Pelvic Floor.—Vaginal Incision and Drainage of Hematoceles.—Pregnancy and Labor as Influenced by Suspensio Uteri.—Hysterectomy for Fibromyomata.—Buried Permanent Suture, by Chas. P. Noble, M. D.

The Antitoxin Treatment of Tuberculosis, by Chas. Denison, M. D.

The Texas Screw Worm and its Invasion of the Nasal Cavities.—Advanced Method in Teaching the Deaf.—Bilateral Syphilitic Ulceration of the Auricle, by M. A. Goldstein, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR JANUARY, 1898.

CAUSE.	White	Colored....	Total
Fever, Malarial (unclassified).....		2	2
“ “ Intermittent			
“ “ Remittent	1	1	2
“ “ Congestive.....	1		1
“ “ Typho	1		1
“ Yellow	1		1
“ Typhoid or Enteric.....	10	1	11
“ Puerperal			
Influenza.....	2	1	3
Measles			
Diphtheria	2		2
Whooping Cough		1	1
Apoplexy	14	7	21
Congestion of Brain.....	1	3	4
Meningitis	6	2	8
Pneumonia.....	27	15	42
Bronchitis	13	10	23
Cancer.....	12	3	15
Consumption.....	42	31	73
Bright's Disease (Nephritis)	18	5	23
Uremia	3	2	5
Diarrhea (Enteritis)	12	9	21
Gastro-Enteritis	5	4	9
Dysentery.....	3		3
Hepatitis	4	2	6
Hepatic Cirrhosis	9	2	11
Peritonitis.....		3	3
Debility, General			
“ Senile	13	11	24
“ Infantile	5	6	11
Heart, Diseases of	25	10	35
Tetanus, Idiopathic			
“ Traumatic	2	1	3
Trismus Nascentium.....	9	5	14
Injuries	11	9	20
Suicide	3		3
All Other Causes	93	40	133
TOTAL	348	186	534

Still-born Children—White, 24; colored, 18; total, 42.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 21.42; colored, 27.90; total, 23.30.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.16
 Mean temperature..... 59.00
 Total precipitation..... 1.71 inches
 Prevailing direction of wind, south.

April, 1898.

*Paullum sepultæ distat inertia
Celata virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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In a recent contribution to the *Medical News*, November 27, 1897, by **Prof. R. W. WILCOX**: "A Phase of the Treatment of Goutiness," the author arrives at the following conclusions:

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APRIL, 1898.

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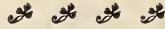
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Laryngeal Diphtheria	26	6
	141	7
Excluding 2 cases moribund on admission	2	2
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Original Articles.

[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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

SYPHILITIC STRICTURES OF THE RECTUM.

BY ERNEST LAPLACE, M. D., LL. D., PROFESSOR OF SURGERY AND CLINICAL SURGERY IN THE MEDICO-CHIRURGICAL COLLEGE; SURGEON TO THE PHILADELPHIA AND ST. AGNES' HOSPITALS, PHILADELPHIA, PENN.

As obscure as the pathology of the tertiary stage of syphilis may be, one point seems to stand out prominently; the poison in that stage seems to produce mainly a development of fibrous tissue. Various scleroses that characterize tertiary syphilis bear witness to this fact. Syphilitic bone diseases, such as nodes and necroses, likewise show in the bones some manifestations of fibrous formations in the tertiary stage of syphilis. Considering a stricture of the rectum merely from the standpoint of pathologic anatomy, we find that a mass of fibres, more or less healthy in their development, encircles the lower portion of the rectum, and upon producing the stricture, offers a more or less complete impediment to the passage of feces. The general symptoms which follow are those of a case of chronic constipation, with fecal impaction.

The etiology of this condition seems simple enough. Patients are, as a rule, of constipated habits. The mechanical effect of hardened feces is a constant irritation to the mucous membrane of the rectum; possibly causes an exfoliation of the epithelium. An infection of the mucous membrane occurs, producing an

acute inflammation, which results in proctitis, which, though due primarily to local irritation, very soon becomes the focus of concentration of the specific virus latent in the organism. As a result, the course taken by these cases is as follows: First, constipation; second, a mucous, or muco-purulent discharge from the rectum, accompanied by pain, incident to irritation. The mucous membrane, being ulcerated, bears granulations on the surface; these develop into the fibrous tissue, which, by accumulation and contraction, results in a stricture.

It is safe to say that a vast majority of strictures of the rectum are due to syphilis when not distinctly traceable to an external traumatism. Malignant disease can produce a stricture, but offers distinct differential signs. It develops rapidly; there are masses of new growths to be felt between the mucous membrane and muscular coat, or as distinct tumors encroaching upon the lumen of the bowel. The neoplasm breaks down early, the edges are much thickened and infiltrated; and hemorrhage is frequent as a result. Compression of the surrounding structure is frequent, because of the infiltration of the tissue by the growth. Pressure upon some branch of the sacral plexus gives pain referable to the distribution of these nerves. On the contrary, when due to syphilis the orifice of the stricture is hard but rather even in development. There is no pronounced tumor at any part, the whole circumference of the bowel is contracted, or possibly there is a valvular opening through the stricture. Tuberculosis very rarely induces a stricture of the rectum, inasmuch as the inflammation it causes is characterized by a purulent formation, rather than that of fibrous tissue. Women are apt to suffer from this condition more than men. In twenty-five cases, twenty occurred in women. The treatment in these cases will be distinctly operative and medical.

The immediate symptom of fecal retention, pain and irritation resulting from it, must be removed. Inasmuch as the tissues forming the stricture are of a low pathologic grade, we believe that the first indication is to restore the calibre of the rectum, and produce at the same time as little traumatism as possible, in order to prevent a more violent inflammation locally at a time when the system is under the influence of the specific virus. This being accomplished, we keep the bowels cleansed with weak irrigations of bichloride of mercury, while the patient is sub-

jected to a thorough constitutional treatment for syphilis. The use of the graduated rectal bougies is the least harmful way of tearing the fibres apart and of removing the stricture. This is done under ether, and can be accomplished in a few minutes. In two or three weeks after this dilatation we find that the gut has retained the new calibre by the operation, or should it have a tendency to contract again, the patient is shown how to use a moderate sized bougie, so as to keep the gut patulous, until the system has improved, and health largely restored. Should any prominent organic stricture remain subsequently, we can very easily resect a few fibrous bands. Under these conditions, the syphilitic irritation being removed, we are not as likely to have a return of the trouble as if a resection of the stricture had been primarily done. Illustrating these principles, we will relate the following cases that have come under our observation in the past few years:

CASE 1.—Mrs. J. F., aged 26 years, very frail and pale, complained of severe pains in the abdomen, and great pain at stool. Her health gradually grew worse for six months. She complained of nervous disturbances and inability to have a free passage. Her stools had gradually become ribbon-like, and only after an enema, and severe strain. Finally constipation began to alternate with mucous diarrhea, and nothing could be evacuated except it was fluid or semi-fluid. The patient spent much of her time in the closet straining, without effectual relief. She went from one physician to another, who treated her for chronic diarrhea. Upon examination it was found that she suffered from an almost complete organic obstruction of the rectum, about two inches above the anus, through which a bougie the size of a lead pencil could not be passed. This lady belonging to the higher circle of society could not be questioned as to the possibility of her being a sufferer of syphilis. A careful examination of her body, however, revealed the fact that at one time she had suffered from an eruption and loss of hair; she also bore on her left knee the evidence of an old ulceration, which now manifested itself by the presence of a white punched-out scar; also on the leg and over the tibia, were copper-colored spots, which suggested an old-time syphilis. She was assured that relief could be gotten by operation, and a proper course of treatment. The ordinary set of bougies was used under ether, and

the stricture fully dilated to the size of the normal rectum. A few ulcerations were noticed somewhat above the margin of the anus. These were curetted and cauterized with pure acid nitrate of mercury. The operation lasted but a few moments, and there was but little hemorrhage. The next day the patient had a free evacuation from the bowels, and her appetite immediately increased. She was given three times daily an enema of bichloride of mercury (1-1000); constitutionally she took ten grains of iodide of potassium, and one-twelfth grain of bichloride of mercury three times a day, alternating with a tablespoonful of the compound syrup of hypophosphites. Two weeks from the time the operation was performed the patient left the hospital, and came to my office twice a week to have the bougie passed. After a month she was discharged as cured, having been taught how to introduce alone a No. 12 Wales' bougie, which she passes about once a week. Six months after the operation she had gained twenty pounds, and was the picture of health.

CASE 2.—Mrs. K. L., aged 52 years, mother of several children, complained of dull aching pains about the sacrum and also of great difficulty in defecation; constant headache, with loss of appetite and general malaise. She complained of great strain at stool, which was also accompanied with pain and hemorrhage; there was constant muco-purulent discharge from the rectum. On examination a hard mass was felt about three inches above the margin of the rectum, scarcely admitting the little finger. The examination was accompanied with great pain, almost throwing the patient into a hysterical condition. On general examination of the body, she showed a condition of adenitis, manifested by a hard, shot-like condition of most of the lymphatic glands. A swelling existed on the right tibia, painful and hard, which was diagnosed a syphilitic node. She denied, so far as her knowledge went, any history of syphilis. Being informed of her condition, she submitted to an operation, which consisted of a dilatation of the stricture to the normal calibre of the gut. Relief of the general symptoms soon followed. The subsequent treatment consisted merely of the local sublimate enema (1-1000) and general constitutional specific treatment. She improved rapidly, and was also given a No. 12 Wales' bougie for personal use for maintaining the normal calibre of the gut.

CASE 3.—J. A., age 32 years, Polish laborer, entered the Philadelphia Hospital with symptoms of chronic constipation; had not had a passage from the bowels for two weeks; complained of severe pains in the sacral region; he was feverish and with severe headaches. Upon examination, a thick mucopurulent discharge was found exuding from the anus. A digital examination revealed a hard substance surrounded by cicatricial tissue. The hard substance felt seemed like a lead pencil. The diagnosis being quite obscure, the patient was anesthetized, and an endeavor was made to remove the foreign body. Traction was made upon it, but to no effect. A deep incision was made in the cicatrix, anteriorly and posteriorly, and traction being again made, it was found to be a piece of wood, and part of it was removed, which looked like a small twig. On further examination it was found that more of this material remained behind. After further incising the cicatrix, two other pieces were withdrawn. It was found that this man had introduced this foreign body for purposes of masturbation. It was a three-branched twig, which being introduced, wedged itself in, and imbedded itself in the tissue. This foreign body, being a mechanical irritant, promoted the development of fibrous tissue around it, which, together with the wood, finally occluded the lumen of the gut. His body bore evidence of the fact that he was a sufferer from tertiary syphilis. The incision required for the removal of the foreign body practically removed the stricture of the rectum. It was, however, found necessary to continue the dilatation of the rectum by means of bougies. Three weeks after the operation the patient left the hospital with a rectum of almost normal calibre, although we learn that he again attempted to introduce foreign bodies into his rectum. This case, aside from the evidences of moral degradation which it presents, was interesting, from the fact that a foreign body was the primary mechanical irritant around which a thick, dense syphilitic scar, or stricture, developed, and as a result finally occluded the bowels.

We have treated within the last six years eight other strictures of the rectum, six of which were in females and two in males. The general line of treatment was in keeping with the treatment of the two first cases related above, and presented no features of special interest. We have at all times been thor-

oughly satisfied with the safety of the procedure of dilatation as an operative measure. We rely upon the practice of the occasional introduction of a bougie by the patient in order to maintain the normal calibre of the gut. We always prefer this tearing of the pathologic tissue by the bougie in the process of dilatation. The fresh wound, which a cutting operation would necessitate, might result in a new specific ulceration and infection, and be attended with greater subsequent risk to the patient.

THE ESSENTIAL ROLE OF THE PNEUMOGASTRIC NERVES IN
YELLOW FEVER AS SHOWN BY EXPERIMENTS, WITH
REMARKS.

BY ADRIAN HAVA, M. D., NEW ORLEANS, LA.

I.—GENERAL OBSERVATIONS.

Nineteen years of experimentation and study have forced me to the conclusion that the symptomatology and pathology of yellow fever rise from a disordered action of the pneumogastric nerves in the cervical region caused by the specific poison, which, at first, consists in a progressive irritation followed by partial or complete paralysis; the degree of irritation or paralysis determining whether the case will end in recovery or death.

In September, 1878, my youngest brother, born in New Orleans, was taken ill. My father, Dr. John Joseph Hava, diagnosed the case cerebro-spinal meningitis.

As the prognosis was unfavorable a colleague was called in consultation, who did not concur in the diagnosis and diagnosed yellow fever, as this disease was prevailing.

My brother's death decided me to study, experiment with and try to solve this mysterious disease.

My father, who was a good clinician and had treated and studied this disease for years in Cuba, brought me, then a medical student, to the bedside to examine his patients, and thus I had abundant opportunity to familiarize myself with the dreaded disease.

After hundreds of experiments upon animals during eighteen years I came to certain very interesting conclusions. I was awaiting the opportunity of going to Cuba so that I could compare the experimental disease in dogs with the disease in man,

when, unexpectedly, we had the unfortunate visitation of yellow fever in 1897, which afforded me the means of carefully studying this disease.

Yellow fever is probably caused by the introduction into the organism, through the respiratory passages, of a specific poison, which, up to the present time, has not been *conclusively* demonstrated, chemically, microscopically or bacteriologically.

In order for yellow fever to exist we must have two indispensable conditions: (1) the poison; (2) a susceptible person. As a rule, those having had yellow fever once are immunized for life.

This disease is not contagious from person to person, although the patient may be a focus of infection; the objects surrounding him, and places occupied by him propagate this unknown poison as well.

While the prevalence of this disease in New Orleans depends upon the introduction of an exotic germ, the local conditions must also be favorable to the multiplication of the specific germ *external to the human body*. The patient acts simply as a carrier of the infectious poison. For this reason he may be the source of infection rather than because he is himself the victim of this disease.

Whilst it is undoubtedly necessary that each one of Koch's requisites should be fulfilled in order to establish the germ origin of a disease, on the other hand we are forced to admit that if they are fulfilled in regard to any organism and disease, the organism must be accepted as a cause of that disease.

Whether the micro-organism or its chemical activity is responsible for the disturbed physiology in yellow fever is an open question.

In Cuba, the disease is often so mild in infancy that it is called "*Fiebre de Aclimatacion*," in which the temperature does not rise over 99 or 100 deg. F., lasting twenty-four to forty hours without the characteristic symptomatology being produced.

When the case is typical and attacks a Cuban infant or child, it is called "*Fiebre de Borrás*." When adults are the victims and the case is severe, it is called "*Tiphus*," "*Vomito de los Criollos*," or "*Paludismo Agudo*."

The same symptoms that determine the "*Fiebre de Borrás*," "*Tiphus*," "*Vomito de los Criollos*," or "*Paludismo Agudo*" in a native

Cuban characterize yellow fever in a foreigner, or unacclimated person, and the treatment is of a different nature.

Here in New Orleans, up to 1878, when Creoles had typical yellow fever, it was called by reputable physicians hemorrhagic malarial or paludal fever, for which quinin was considered almost a specific; yet the same symptoms in a foreigner were called yellow fever by the same physicians.

These physicians stated that Creole infants were seldom attacked by yellow fever. The profession to-day scorns the idea of Creole children being immune, but we must not forget that the conditions existing at that time did not exist in 1897, for nineteen years elapsed without a yellow fever visitation. How could we reasonably expect those born since 1878 to be immune?

The period of incubation lasts from a few hours to several days. The prodromal phenomena of yellow fever are generally very slight, and may be overlooked by the patient or physician.

This disease, as a rule, appears more or less suddenly with or without producing chill or chilly sensation. When the chill exists, the cold stage is of short duration, alternating with a sensation of heat which is gradually increased until finally the hot stage is established.

In yellow fever the nervous phenomena of the period of invasion are characterized by a rising internal temperature whilst the surface is cold and pale; the patient feels chilly or shivering, the pulse frequent, long and small, from contraction of the arteries.

The shivering sensations are replaced by a suggestive sense of heat, the skin is hot, due to the paralysis of the capillary vessels producing stasis or a temporary local arrest of circulation; the pulse is now large and bounding from relaxation of the arterial walls.

At this period the skin is hot and dry, the patient suffers more or less intensely from cephalalgia (frontal and ocular), rachialgia, myalgia; the patient is restless, alarmed, with flushed face, eyes brilliant, injected conjunctivæ and photophobia; jaundice in the lower limbus of the eye is observed early; the tongue is coated, the point and edges are red, the mucous membrane of the fauces and pharynx is congested, producing excessive thirst; the stomach is irritated, causing nausea and

vomiting, at times, of undigested food, mucous and even bilious matter.

I saw in 1897 a case of yellow fever where there was a contraction in the esophagus so that liquids taken never reached the stomach and were rejected clear, whilst immediately after the so-called black vomit was ejected. This phenomenon was repeated several times during my visit.

The respiration at first is hurried and often irregular. I saw several cases in 1878 and one in 1897 where the respiratory process was remarkably intermittent after three or four regular respirations; the respiratory movements would be suspended for from ten to twenty seconds, then resume as before, to be again suspended. Altogether the respirations averaged nine or ten per minute. The pulse remained full, at the rate of 84 per minute.

In grave cases I have noticed that the inspirations are deep and prolonged.

The temperature in the mouth ranges from 101 to 104 deg. F., or higher, reaching its maximum more or less suddenly. The pulse is about 100 to 140 per minute from the beginning.

Unless the case is very mild or rapidly fatal, the decline of the temperature is relatively slow when compared with the short time that its maximum is attained.

The pulse from the outset commences to decline, so that within the first twenty-four or thirty-six hours it beats ten to fourteen times less, and will continue to decline (in uncomplicated cases). By the third or fourth day the pulse ranges about normal, and in a few days more it may not exceed half its normal average.

I have noticed that the pulse is often most singularly intermittent, but the time of interval was always less than the time of one pulsation.

During the course of this disease a slight evening exacerbation and morning diminution of temperature are often perceived. Even when the temperature has descended below normal we often observe a few fifths of a degree of elevation of temperature in the evening before the normal is reached definitively.

If the case is to terminate favorably, on the first or second day we might find a slight delirium, moderate perspiration, bowels

slightly constipated, urine normal in appearance, followed by oliguria and even temporary retention.

From the third to the fifth day albumin is found in the urine in greater or less quantity. By this time, in mild cases, the temperature, which has not risen very high, has now declined and all the other symptoms abate, and the stage of calm or prostration commences, which may last a few hours or longer.

The period of calm coincides with the decrease of the temperature and pulse; the patient feels much improved, the appetite, which was not altogether lost, returns; thirst is less intense, and he may enter upon a slow convalescence. This period of calm is very delusive and if the case is severe all the symptoms are aggravated. If it is to terminate fatally, the pulse, which is slow and full, now progressively rises, becoming weak and toward the end it is gaseous and imperceptible.

The temperature, which had declined at this period, continues to fall until it becomes sub-normal. In fact, as my father stated, "*Yellow fever is a disease of which the patient often dies when he has no fever.*" The patient dies when, judging from the falling temperature, we would naturally expect him to recover.

The skin becomes yellowish and anemic, perspiration more or less profuse, emitting at times a peculiar, characteristic odor, the gums are swollen, bleeding readily if touched, the tongue coated yellow, bowels loose, tenderness in the epigastric region increases, sometimes hiccough followed by black vomit of a projectile type and stools become black.

In hemorrhage of the stomach, when the blood is altered by the gastric juice, so that the oxyhemoglobin is converted into hematin, the vomit has the appearance of coffee grounds; it should be borne in mind that the exhibition of preparations of iron will impart to the vomit the same appearance as that due to blood. Also the abundant use of red wine and finally the presence of bile pigment may cause it to assume a brownish or black color.

Oliguria supervenes, finally ending in suppression; coldness of the extremities, face and hands becoming cyanosed, death, and icterus marked.

During the agony, the nearer the patient is to succumb to

yellow fever, the lower the temperature, as a rule falling considerably below normal.

Immediately after death the face and hands are cyanosed in appearance; the body usually preserves its natural form, the dependent portions of which are of a mottled, purplish-yellow, ecchymosed appearance. Black vomit or dark blood is seen oozing from the corners of the mouth and nostrils.

The cadaveric rigidity is quickly established. At times the temperature rises considerably immediately after death, due to chemical changes.

The skin is of a yellow-lemon color due to *blood pigment*. This yellow coloration is not so intense or evenly distributed as in hepatogenous jaundice, which produces a saffron yellow color, so often seen during convalescence from yellow fever.

When the abdominal cavity is opened, the liquids, organs and muscles are yellowish. The blood-vessels are congested, and the peculiar odor, like that arising from the body during life, is perceived. The discolorations in the skin, muscles and organs are due to a traumatic condition produced by blood stasis (like that due to a bruise with effusion of blood). It seems that the blood only disintegrates whilst contained in the interior of the minute blood-vessels when they do not receive for a certain period of time, or can not take up the required amount of oxygen, so that before the extravasation, due to blood stasis, occurs, the blood-corpuscles part with their coloring matter, which passes through the walls of the blood-vessels and is absorbed by the tissues.

I saw a fatal case in 1897, where this condition was illustrated by the appearances in the skin along the course of an artery, which were the same as the different discolorations seen in bruises when the extravasated blood commences to disintegrate.

The brain is edematous in appearance, of a yellowish tinge, the ventricles filled with a yellow fluid. The dura-mater is normal; the pia-mater is found congested, veins, arteries and arterioles filled with blood; the cerebrum and cerebellum are at times congested.

The pons varolii and the medulla oblongata are in a state of considerable hyperemia. The lungs are usually normal, but at times emphysematous, engorged with blood and present hemorrhagic infarcts. They also have a mottled appearance, with small ecchymoses and hepatization.

The bronchial tubes contain mucus, and, when pneumonia supervenes, the expectorated matter contains pure blood.

The pericardium contains fluid of a yellow color, is notably congested; the blood-vessels distended with dark blood. The heart is softened and yellowish, its cavities containing dark blood; clots are often present, both ante-mortem and post-mortem.

In the muscular structure of this organ an accumulation of fat or oil is found, due to imperfect oxidation; *fatty degeneration* is also observed, which is undoubtedly produced by imperfect nutrition, but this fatty degeneration is not constant.

In the majority of fatal cases the mucous membrane of the stomach, although more or less congested, does not reveal any inflammatory condition. The congestion is not always uniform in character; it may be most marked at the cardiac or pyloric extremity, or along the greater curvature of the stomach. Sometimes patches of extravasated blood are found. The hemorrhages of the stomach occurring in yellow fever are due to the extravasation of blood corpuscles and rupture of minute blood-vessels. The blood extravasated into the stomach, altered by the gastric juice, when ejected is called the black vomit. This black fluid can be produced artificially outside of this organ. When the hemorrhage is profuse, and the gastric juice is not in sufficient quantity in the stomach to alter the color of the blood, it is vomited more or less in its pure state. At times the vomited matters ejected during life, as well as the contents of the stomach after death, are of an alkaline reaction attributed to the presence of ammonia, resulting from decomposition of the urea, eliminated by the gastro-intestinal mucous membrane.

The liver is bloodless, somewhat dry, of a yellowish coloration, revealing no inflammatory condition, having an accumulation of oil globules and its cells undergoing fatty degeneration.

Portions of the liver may be in a state of hyperemia; the capillary meshes of the hepatic venous radicles present a greenish color, fading into a yellowish tinge. At times patches of extravasated blood are seen.

When a decoction is made of the liver the liquid acquires a golden yellow color, containing traces of glycogen. As a matter of fact, the glycogenic function of this organ is greatly diminished and may be even totally arrested.

The gall bladder is flaccid, edematous and empty, but containing at times a small quantity of dark bile, serous liquid, and even a large accumulation of extravasated blood.

The kidneys, yellowish brown in color, present traces of hyperemia and a condition of infarction, but no inflammation. Atrophy and fatty degeneration are marked. The same greenish color, fading into a yellowish tinge, as observed in the capillary meshes of the hepatic venous radicles, is found in the kidneys. The changes in the supra-renal capsules are like those in the kidneys. The spleen is found normal in uncomplicated cases, but is at times enlarged. The intestines are slightly congested, sometimes ecchymosed, dark colored, containing gases, sometimes black blood, of an alkaline reaction; but if the contents of the intestines are acid, it is due to decomposition of organic matter.

The urinary bladder is congested, sometimes ecchymosed, and may be found empty and contracted, or may contain a small quantity of urine of a yellowish-red color, loaded with albumin and containing casts of the tubuli uriniferi. The rectum is congested.

The hemorrhages observed in yellow fever may take place from the skin or mucous membrane, conjunctiva, nose, lungs, stomach, intestines, urinary bladder, urethra, rectum, and in females, who are capable of menstruation, from the uterus. I saw in 1878 considerable bleeding from a slight abrasion of the skin. Sometimes in grave cases we find blood extravasated into the cellular tissue, terminating in gangrene.

When we study yellow fever charts, if the disease has followed its natural course uncomplicated, we see that the pulse descends from the beginning, whilst with few exceptions the temperature rises at the beginning and may continue to rise for several days, so that the divergence in the direction of the two lines becomes valuable from a diagnostic point of view.

In fatal cases the paroxysm ends by a divergence in the lines in an inverse sense; the temperature sinks, whilst the pulse rises. If the two lines are arrested in their descent and rise together it is always due to some complication which might be more or less dangerous.

In cases terminating favorably, at the end of the paroxysm the two lines descend parallel to each other and often fall below

their normal level. If the two lines diverge in the middle of their course, the pulse rising whilst the temperature sinks, death will invariably ensue if this condition is prolonged.

The pulse, according to the gravity of the case, may fall to its normal, and even as low as 30 beats per minute. The rapid fall of the temperature and pulse may be due to a mild attack or to a rapidly fatal termination. Also a slow, weak pulse, with very high temperature, or *vice versa*, is fatal. In cases that terminate in recovery the pulse and temperature descend gradually.

All theories advanced up to the present to explain the cause of yellow fever, with the exception of the germ doctrine, are unsatisfactory.

The microscopic examination of the blood in the beginning of this disease offers nothing remarkable; but later, however, the colorless blood corpuscles have fat globules in their protoplasm, a phenomenon which finds satisfactory explanation in the fatty infiltration of other organs.

There is a chemical alteration of the blood, by which it becomes less alkaline.

When a patient dies through accidental causes, early in the disease, we find an abnormal collection of blood in the organs in which we would expect to have grave pathologic changes if the disease had followed its natural course.

If death takes place after convalescence has set in (which is more or less rapid), the affected organs are found to be rapidly returning to their normal state.

The hemoglobin is the mother substance from which the bile-pigments are derived. In the disintegration of the red blood corpuscles, the hemoglobin is liberated and carried to the liver, and excreted in part, as bile-pigment. In yellow fever, when the functions of the liver are partially or totally arrested, due to stasis and a consequent want of oxygenation, the red blood corpuscles disintegrate in a greater number than normal, and part with their hemoglobin. The coloring matter is absorbed and the liquids and tissues are stained. As the liver can not use the hematin for its coloring matter (bilirubin), hematogenous jaundice is unavoidable; but if the hematoidin reaches the liver through the circulation, the functions of which are normal and active, the coloring matter is converted into bilirubin, and jaundice is avoided. There can be no hepatogenous jaundice from a suppression of secretion.

II.—THE EXPERIMENTAL DISEASE IN DOGS.

There are two physiologic functions which bear a constant relation to each other; these are the pulse and the respiration, viewed from the standpoint of their frequency. Fever and all other conditions that accelerate the pulse also render the respiration more frequent.

Division of the vagi in the cervical region disturbs this relationship, but in directly opposite ways; the respiration becomes slower, but the pulse more rapid, and if the respirations are diminished one-half, the pulse doubles in frequency.

Even more remarkable than the increased pulse rate is the rise in arterial tension, which jumps in dogs from one hundred and fifty millimeters (the normal) to two hundred and sixty millimeters. This increased tension, however, does not last very long, when it is followed by a stage of complete loss of tone in the vascular walls, which plays an important part in the hemorrhages of yellow fever.

Finding that chloroform or ether administered to dogs often proves fatal, when my experiments were not necessarily painful, I did not use an anesthetic.

In a dog when the *uninjured* pneumogastric cords are stimulated in the cervical region, the heart beats and respiration will be reduced or stopped. Trembling simulating a chill, vomiting and violent convulsions will take place; also the urinary excretion will diminish; both pupils will dilate and the ears and eyes become pale. As soon as the stimulation is stopped, the circulation and respiration will gradually increase, becoming accelerated, but finally dropping to the normal that existed prior to the stimulation, and the eyes and ears become temporarily injected as in a mild case of yellow fever. Within twenty-four hours, the dog is again in his normal condition.

Now, if we cut the left vagus only, blood pressure will increase and vomiting will take place every time the uncut nerve is touched.

Ex. I.—In a healthy old dog, weighing twenty pounds, fed four hours before the experiment on soup meat, the temperature in the rectum was 99, pulse 90 per minute, intermittent, respiration 18 per minute, blood pressure being 155 millimeters. I exposed the vagi in the cervical region, and without wounding them

I placed a small wire under both nerves in order to pass a very light electric current through both nerves at the same time. The effect was to slow the beating of the heart and the respiration; but as soon as the wires were carefully removed from the nerves without injuring them, the circulation and respiration improved, and in twenty-four hours the animal was in his normal condition.

Ex. II.—To satisfy myself whether the vagi had centripetal and centrifugal action at the same time, I made the following experiment: Both vagi were exposed and cut in the middle of the cervical region.

When we cut, or paralyze the vagi by ligating the nerves, the rate of the pulse doubles its normal. The stimulation of the proximal ends of both nerves with a mild galvanic current [will cause a slowing or complete arrest of respiration according to the strength of the current, while the circulation is unaffected.

The stimulation of the proximal ends also produces violent convulsions, and a decrease of the urinary excretion, which contains traces of sugar.

The stimulation of the distal ends will, on the contrary, arrest the heart, and the liquids from the stomach will come up by reversed peristalsis, while the respiration will continue undisturbed.

After the vagi are cut, or paralyzed, in the cervical region the dog's ears become red and hot, the eyes prominent and injected, the pupils are contracted, the respiration diminishes, pulse regular and increased in frequency. The urine was examined and found to be normal and acid. If we then irritate the proximal ends both pupils will become immediately dilated, the ears and eyes becoming pale and vomiting of undigested matters will take place.

Real vomiting is produced by the irritation of the proximal ends, but especially through the right vagus. The respiration will diminish considerably, and even stop, if the current is strong in the inspiratory movement, from ten to thirty seconds producing a slight asphyxia and violent convulsions.

When the electric stimulation is stopped, the respiratory movements increase little by little, becoming accelerated, then dropping to the normal. The blood, which was dark in the arteries, again becomes red. Within fifty minutes the respira-

tory movements have decreased to the number that existed before the stimulation, and all the phenomena noted before the stimulation have returned.

The heart and circulation were not involved in this experiment, the pulse remaining at 180. This dog was then sacrificed seventy-two hours after the last experiment, by opening an artery, and the blood flowed without its usual jet. When the vagi are cut the arteries lose their tension and fullness, and even the appearance of their volume.

Post-mortem examination showed the brain to be highly congested, especially the medulla oblongata. The bladder was found empty; the irritation of the proximal ends of the vagi had completely arrested the urinary secretion as if the animal had been nephrectomized.

When, through electric irritation of the proximal ends, the respiration is stopped, the blood in the arteries becomes black without the heart's beat changing in type.

Ex. III.—In a healthy dog, weighing 18 pounds 6 ounces, with a large gastric fistula for two months, pulse 90 intermittent, respiration 22, regular, temperature in the rectum 99 F., in the stomach, $99\frac{1}{2}$; the inner surface of the stomach was red, containing gastric juice and undigested food. I then washed out the stomach with water until it was devoid of undigested matters. A plug of absorbent cotton was placed in the fistula, then the left vagus was cut; the plug was removed and the mucous membrane of the stomach retained its normal color; then the right vagus was also cut, the mucous membrane of the stomach became immediately pale. But within thirty minutes the mucous membrane became very red. Thirst and hunger will persist, but the cardiac end of the esophagus is paralyzed and distended, so that the food and liquids accumulate in it; but, owing to the contraction of the pillars of the diaphragm, the accumulated matters in the paralyzed esophagus may enter the stomach, which is at the same time partially or totally paralyzed; and if a sufficient quantity of gastric juice is present, digestion will continue, but later on the gastric secretions are altered and even suspended so that the stomach becomes coated with a thick mucus of an alkaline reaction.

If at this period, through the gastric fistula, we introduce into the stomach fresh blood or meat pulp, we find that digestion will not take place.

This animal died 84 hours after the vagi were cut, and 22 hours from the time that the blood and meat pulp were introduced into the stomach.

The autopsy revealed that the contents of the stomach were of an alkaline reaction, exhaling a very pronounced ammoniacal odor, due to the decomposition of the blood altered by the alkaline secretion of the stomach.

When the vagi are cut or paralyzed in the cervical region, if the dog is not fed and dies within three to five days, which is the rule, the stomach will be found empty, and the contents of a neutral reaction.

Ex. IV.—A healthy, domesticated dog, weighing twenty pounds, fed four hours previous to experiment, pulse 86, irregular; respiration 18 per minute, regular; temperature 99 in the rectum; blood pressure 160 *mm*.

The vagi were exposed in the cervical region. When the nerves are touched or irritated the animal shivers as if he felt cold or had a chill, and vomiting is produced. A silk ligature was placed around the left vagus, the effect of which was to accelerate the circulation.

Then a ligature was placed around the right vagus and the animal became suffocated, but was soon calm again; respiration fell to 12 per minute, the pulse increased to 174 per minute and regular.

Twenty-four hours after the dog seemed to be calm, respiration still labored, pulse accelerated.

The animal was hungry and very thirsty, but drank water with difficulty. When the liquids were swallowed, the animal coughed and was taken with vomiting spells, but vomited a smaller quantity than the amount taken. Vomiting continued as long as the animal took liquids. Animal passed hard excrements; urine was red and acid. At first the vomited matters were acid, but very soon they became alkaline and so continued for five days. On the seventh day the dog was dead and the gastric secretions were found acid, proving that the natural secretions of the stomach had been temporarily arrested. This acidity could not have been due to a chemical decomposition, as the animal was only allowed water.

Ex. V.—In a dog weighing sixteen and a quarter pounds,

with a large gastric fistula for thirty days previous to experiment, a solution containing ten grains bisulphate of quinin was introduced into the stomach; within two hours, a large quantity of quinin was detected in the urine. The following day I injected into the stomach of the same dog, through the gastric fistula, ten grains of salol. Two hours after, the urine gave the reaction of salicyluric acid.

I exposed the pneumogastric nerves in the cervical region and passed a silk thread under each, being very careful not to injure the nerves, and left the wound to heal for forty-eight hours; then I ligated the nerves and all symptoms of paralysis as stated before began to be observed.

Twenty-four hours after the nerves were paralyzed, I injected into the stomach of this dog the same quantity of bisulphate of quinin solution, and two hours after the same quantity of salol as previously used before ligating the nerves; the urine analysis revealed only traces of the drugs injected into the stomach. I was very careful not to let the dog have any liquids so as to avoid vomiting as much as possible, and carefully plugged the gastric fistula to prevent oozing.

This experiment proves that the absorbing power of the mucous membrane of the stomach is greatly reduced when the vagi are paralyzed.

This animal died from pneumorrhagia or bronchorrhagia.

Sixty hours after the nerves were ligated and thereby paralyzed, the rectal temperature before death was reduced to $94\frac{2}{5}$ F.

Ex. VI.—In a healthy dog weighing twenty-two pounds, pulse 104, intermittent; temperature in the rectum, $99\frac{1}{5}$; blood pressure 158 min.; the nerves having been exposed forty-eight hours previously, the vagi were cut in the cervical region, with the usual phenomena following.

Eighteen or twenty hours after the nerves were cut, wishing again to repeat the experiment with quinin and salol, I made a gastric fenestrum, and the blood continued to ooze from the wounded tissues for eight hours, so that I could not check the bleeding with cold or hot applications; ergot and ergotin, by the stomach and hypodermically, perchloride of iron internally and locally, tannic and gallic acids, and a solution of calcium chloride were used. All these drugs proved of no avail. I

did not try the actual cautery. My dog having died of hemorrhage that I could not control, I was forcibly struck with the idea that this animal was in the same condition as a person affected with hemophilia.

I had already noted that when the vagi were cut or paralyzed in the cervical region, death due to hemorrhage was more rapid than when the nerves were intact.

Ex. VII.—A healthy dog weighing thirty pounds, temperature in the rectum 99 F., respiration 20 per minute, regular; pulse 90, intermittent; blood pressure 160 millimetres. The vagi were exposed in the cervical region, without cutting or wounding them; I passed a silk thread under each nerve, respiration fell to 16 per minute, pulse increased to 96 per minute, but remained intermittent as normal.

The left vagus was cut in the cervical region, and immediately the pulse became tumultuous and accelerated and blood pressure augmented.

Thirty minutes after the right vagus was cut, the animal became again agitated, blood pressure rose even higher, and was so maintained for thirty minutes; then the pulsations were regular, becoming weak and fast.

Respiration was slow, 8 per minute; blood pressure was slowly diminished to 130 millimetres, pulse 160.

This animal was not disturbed for forty-four hours, when he was found calm, pulse had increased to 180 per minute, imperceptible, the respiration was 7 per minute, blood pressure had considerably diminished.

Twelve hours later the dog was in a dying condition, respiration was slow, the animal felt cold to the touch, temperature in the rectum 94 F. before death.

Ex. VIII.—A healthy dog, about 18 months old, weighing sixteen pounds; pulse normal, 88, intermittent; respiration, 17, regular; temperature, 99 F. in the rectum. The right vagus was cut in the cervical region; the pulse fell to nearly half its normal, with long intermittences; respiration, 11 per minute. Thirty minutes after the left vagus was also cut; pulse becoming regular, 176 beats per minute; respiration, 7 per minute, with long intervals between inspiration and expiration; inspiration deeper than in the normal state.

Sixty hours after the first operation the animal was calm, the

temperature in the rectum had fallen to $95\frac{2}{3}$ F., and the temperature steadily declining as the agony approached.

The dog was in a horizontal position, and an alkaline mucous liquid coming from the stomach oozed from the mouth and nose. As the animal expired the rectal temperature was 94 F.

Gentle pressure made over the region of the stomach produced the same oozing of alkaline liquids through the mouth and nose as existed before death.

Ex. IX.—A healthy dog, weighing twenty-six pounds, fed four hours before the experiment, temperature in the rectum was 99 F.; pulse 88 per minute, full but intermittent; respiration 16 per minute, regular. Blood pressure in the carotid artery 160 millimetres.

The right vagus was cut, and the pulse fell to 44 per minute, with long intermittences; respiration, 11 per minute; blood pressure suddenly rose to 230 millimetres. Within twelve minutes blood pressure diminished to 94 millimetres. Then the left vagus was cut, the pulse becoming very fast and regular, blood pressure increasing to 260 millimetres; after two hours respiration was labored—7 per minute; pulse, 85.

Twenty-four hours after the operation, the dog being in a horizontal position, an alkaline liquid coming from the stomach oozed through the mouth and nose; blood pressure had gradually diminished to 80 millimetres.

Long intervals between inspiration and expiration; blood pressure falling to 70 millimetres with expiration, and rising to 80 millimetres with inspiration. Ninety hours after the pulse was 176, weak but regular; temperature in the rectum, 94 F.

When the vagi are cut or paralyzed in the neck in a healthy dog, the liver at the time of operation contains all that is necessary for its normal functions; yet, when the dog dies, the liver always ceases to contain sugar or glycogen. The glycogenic function is slowly arrested, so that thirty-six or forty-eight hours before death this function is totally arrested.

If the hepatic glycogen is not changed into sugar it must be converted into fat.

This experiment proves that when the vagi are cut or paralyzed the phenomena of nutrition are profoundly altered, so that the glycogenic function of the liver, which exists from intra-uterine life, is suspended.

The glycogenic function contributes to the maintenance of animal heat and nutrition of the tissues.

A decoction made with the fresh liver of a dog having died after the vagi were cut in the cervical region gave a yellowish liquid, in which not even traces of sugar could be found. Normally the glycogenic function of the liver persists during the whole course of life and lasts until death.

When an animal is gradually starved to death, the liver contains sugar and glycogenic matters until thirty-six or forty-eight hours before death.

When this vital function is suspended the temperature falls below normal, and at this period of exhaustion no amount of stimulation can save the animal.

Ex. X.—In a female animal pregnant fifty-five days, the vagi were exposed in the cervical region and a ligature placed around each nerve; all symptoms due to the paralysis of the vagi were observed. The animal died ninety-six hours after the operation. At the time of death the rectal temperature was $91\frac{2}{3}$ F. Immediately after death the abdomen was opened and the uterus taken out. The uterus contained five puppies, of which four were dead. The one that survived died eighteen hours after. A decoction made with the liver of the mother contained no sugar or glycogen; the stomach contained alkaline mucus and decomposed meat (on which the animal had fed), having an ammoniacal odor.

The livers of the four puppies found dead within the womb, as well as that of the one that had survived eighteen hours, contained sugar and glycogen.

During the course of fifteen years I had only twice the opportunity of experimenting on dogs with fever. One of these was a pet dog, weighing 24 pounds, which I knew had a pulse of 90 per minute, intermittent, respiration averaging 18 per minute, regular, rectal temperature normally 99 F. I noticed that the animal was sick and had a rectal temperature of 104 deg. F., pulse 140, respiration 28.

I could not resist the temptation to experiment that this rare occasion afforded me, although it grieved me very much to sacrifice the animal; but my object was to clear up a phenomenon so often observed in yellow fever, and which has not been satisfactorily explained up to the present time. The object of

this experiment was to ascertain *if the pulse could be reduced whilst the animal's temperature was high (fever).*

I severed the vagi in the cervical region; the pulse rose to 160, regular, blood-pressure was suddenly increased, respiration falling to 9 per minute, with long intermissions; the eyes bulged and were very much injected, pupils contracted.

Then I stimulated both distal ends with a mild galvanic current, which reduced the pulse, and when a stronger current was applied the circulation was for the time being arrested without modifying the respiration, and the acid liquids from the partially paralyzed stomach flowed through the paralyzed esophagus and escaped at the mouth and nose.

The poor animal was left in my experimental room until the next morning. Fourteen hours after the dog was calm, very thirsty, vomiting immediately after the liquids were taken, the animal swallowing with a great deal of difficulty, coughing when he attempted to swallow. Temperature had declined to 101 F. in the rectum; pulse had increased to 180 per minute. I again stimulated both distal ends with the same result as heretofore stated. A sufficient quantity of urine was found in the bladder, red, acid, and containing less urea than normal.

During the day, the dog had several soft offensive passages. The dog continued calm, vomiting all liquids taken, immediately after reaching the esophagus, but vomiting less than was ingested. Pulse 190, becoming weaker imperceptibly; temperature had fallen below normal; respiration 7 per minute, labored. The declining temperature had fallen from 104 to 95 F. within fifty-six hours, making a total fall of 9 deg. F., yet the dog was still living.

I then emptied his bladder, and with a mild galvanic current, stimulated the proximal ends of both pneumogastrics for a few seconds at a time, and at short intervals, applying hot water bags around the animal in order to prolong his life. The effect of stimulating the proximal ends was to produce vomiting and stop the respiration. If the stimulation was sufficiently prolonged, convulsions would supervene. This stimulation of the proximal ends was kept up at short intervals until death, which took place one hour and forty-five minutes after the first stimulation of the proximal ends.

Temperature in the rectum at the time of death was 93 F. A

post-mortem examination revealed the bladder to be completely empty, proving that the stimulation of the proximal ends had completely arrested the urinary excretion, as if the dog had been nephrectomized.

Ex. XI.—In a dog, with the vagi paralyzed in the cervical region, the proximal ends were stimulated with a strong galvanic current, and vomiting and violent convulsions took place; the urinary excretion, as before, was arrested as if the dog had been nephrectomized.

If we continue to stimulate the proximal ends of the nerves, even a subcutaneous or intravenous injection of a saline solution will not increase the urinary excretion; when the stimulation is not strong, the urinary excretion may contain traces of sugar.

When, in a dog, the vagi are cut in the cervical region, if the distal ends are gradually stimulated at intervals so that death take place early, the organs in which we would expect to find pathologic changes are found engorged with blood, the bladder containing urine with traces of albumin.

In a dog, life is compatible with one vagus cut or paralyzed, and if we paralyze both vagi, six or eight weeks apart, the dog will gradually lose flesh and finally dies within about sixty days after cutting the first nerve.

Ex. XII.—In a dog weighing thirty pounds, temperature in the rectum, 99 F.; respiration 20, regular; pulse, 104, intermittent; blood pressure, 160 mm.; the vagi were cut in the cervical region, and all the phenomena due to the paralysis of the pneumogastriacs were observed. The dog's life was exceptionally prolonged under the circumstances, dying twelve days after the operation.

The gastric juice disappeared from the vomited matters very soon; the vomited matters continued alkaline in reaction until the eighth day, when, to my astonishment, they contained gastric juice, and the dog, although vomiting, seemed to retain and digest some of the food that he had swallowed with a great deal of difficulty.

Death took place after twelve days. The rectal temperature at the time had fallen to 91 deg. F. The autopsy revealed the heart, liver and kidneys undergoing fatty degeneration. The gall bladder was empty.

The lungs were emphysematous and the bronchial tubes contained purulent matter. The stomach was injected. The small intestines contained a yellowish fetid matter. The brain was congested, having a yellowish tinge, which was also noticed in all the tissues. The bladder contained a small quantity of very acid urine.

PATHOLOGIC ANATOMY.

In my experiments the following conditions were generally found: The brain is congested and edematous, and of a yellowish tinge. The medulla oblongata is in a remarkable state of hyperemia, especially if the proximal ends of the pneumogastric have been stimulated. The cerebro-spinal liquid is very yellow. The lungs are engorged with blood, emphysematous, with small ecchymoses and mottled in appearance. Red hepatization often found. The bronchial tubes contain mucosities, at times bloody. I once found the bronchial secretions purulent. The heart is yellowish, soft, flabby, and undergoing fatty degeneration. The diaphragm is normal.

When death takes place, either very early or very late in the experimental disease (*i. e.*, after the seventh day), we will find acid gastric juice in the stomach, and the mucous membrane congested or even ecchymosed; but, between these extremes of time, the secretion will be found neutral or alkaline, and the mucosa pale.

The liver is found of a yellowish coloration with a few ecchymoses, and undergoing fatty degeneration. The blood vessels are found empty.

A decoction made with the fresh liver of a dog that died ninety-six hours after the vagi were cut in the cervical region gave a clear golden-colored liquid, in which not even traces of sugar could be found.

The gall bladder is found empty. I once found it filled with blood. Kidneys are yellowish, congested, at times undergoing fatty degeneration. The small intestines are slightly injected, containing yellowish fetid matter, and ecchymoses are often found.

The urinary bladder is slightly injected, containing an acid or alkaline urine. The alkalinity of the urine is due to the arrested digestion. The alkaline urine becomes acid immediately when heated or exposed to the air for two hours or more.

In a dog, due to paralysis of the pneumogastrics, the secretion of the stomach becomes neutral or alkaline, the urine is also found alkaline; yet, if in the same dog we introduce through a gastric fistula normal acid gastric juice, the urine will become acid.

If the proximal ends of the pneumogastric have been stimulated the bladder is found empty and contracted. If the stimulation has not been sufficient to completely arrest the urinary excretion the urine contains traces of sugar. If the distal ends have been stimulated long enough before death, the urine may contain albumin.

In man, the vagus contains trophic fibres for the cardiac substance. After disease or injury of the vagus, the heart has been found in a state of fatty degeneration. Vascular lesions of the lungs and hemorrhages have been observed after section of the vagus, as well as hemorrhages of the stomach.

In intestinal paralysis, due to the interference with the functions of the pneumogastric nerves, the mucous coat becomes the seat of degeneration.

As a matter of fact, the pneumogastric is an afferent nerve for the vaso-motor centre, the action of which is lowered by its stimulation, so that the arteries throughout the body are relaxed.

Furthermore, from experiments made on dogs, I came to the following

CONCLUSIONS.

The symptomatology of Basedow's or Graves' disease, such as the red-puffed appearance of the face and distended blood vessels, producing an abnormal cutaneous circulation; rapid pulse, 120 to 140 per minute; headache, thirst, nausea, vomiting; great muscular feebleness; in females excessive uterine hemorrhages; shortness of breath and the bronze discoloration of the skin, are all due to the interference of the normal function of the vagus.

Hemophilia may be due to a congenital abnormality of the function of the pneumogastric nerves.

The symptomatology and pathology of that rare disease, acute yellow atrophy of the liver, are, to my mind, due to a slow and progressive atrophy and paralysis of the nerves in question.

The symptomatology and pathology of acute phosphorus poisoning seem to indicate that phosphorus, as well as yellow fever poison, has a specific action upon the pneumogastrics.

It is said that the introduction into the circulatory system of putrid organic matters produces symptoms and pathologic lesions which closely resemble those of yellow fever.

The symptomatology and pathology of the bubonic plague and black death could be attributed to a specific poison, that could at different periods, during the course of the disease, temporarily or completely paralyze the pneumogastrics.

My experiments prove to me conclusively, that *it is not essential in order to produce the symptomatology and pathology of yellow fever for the specific poison to reach the organs through the circulation, and by its presence, or chemical activity, produce the symptomatology and the grave pathologic changes found after death.*

In a susceptible person, *all that is necessary for yellow fever to be produced, is the introduction into the system of the unknown specific poison which stimulates progressively the pneumogastric nerves in the cervical region, partially or totally paralyzing them. The degree of stimulation or partial paralysis determines whether the case will be mild or severe, total paralysis ending in death, whilst all shades and degrees of difference in the intensity of the attack correspond to the many degrees of involvement of the pneumogastrics caused by the action of the materies morbi or its ptomain.*

Clinical Reports.

SUTURE OF THE CONJUNCTIVA—ITS FURTHER INDICATION.

BY PAUL L. REISS, A. M., M. D. (PARIS)

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In a recent article in the *Annales d'Oculistique*, November, 1897, by Rohmer, of Nancy, on the conjunctival pouch suture in solutions of continuity of the cornea, we read the following conclusions he arrived at after the observation of twenty-four cases:

“The conjunctival suture is indicated:

“1. In recent wounds of the cornea, simple or complicated

with irreducible hernia of the iris, and that after resection of the iris.

“ 2. In cases of old synichies on the level with the corneal surface and in which care has been taken to have that surface denuded before the corneal transformation took place.

“ 3. In limited corneal or sclero-corneal staphylomas.

“ 4. In corneal ulcers complicated with prolapse of the iris.

“ 5. In fistulas of the cornea.

“ 6. Even in cases of repeated attacks of irido-cyclitis caused by infection from a cicatrix.

“ 7. Finally, in cases of retarded cicatrization after cataract operations, or again in cases of prolapse of the iris which sometimes complicates the large flap operation without iridectomy.”

Rohmer prefers the pouch suture of DeWecker to the flap operation (conjunctival) of Meyer, which to him is not practical and somewhat uncertain in its results.

I want to add even a further scope to the operation, and say that it finds its indication also in a large wounds of the eyeball, even when the ciliary body has been affected in the solution of continuity.

The following case will prove this fact:

On August 19, 1897, a mother came to my office with her child Lydia H., aged 2½ years. That same morning a vase fell on the left side of her face, inflicting a wound one and one-half inches long, a little above the outer angle of the lids downward in a straight line. Upon examination of the eyeball there was also a wound extending from the outer and lower part of the cornea downward and outward, to a line even with the lower fornix. The iris and ciliary body of that region were involved in the wound. The tension of the eye was .2. There was a slight escape of vitreous humor. After chloroforming the child, I dissected the conjunctiva all around the cornea, except in the region of the wound, where I followed its outlines. I then clipped off with a pair of scissors the prolapsed portion of the iris and ciliary body. The conjunctiva was brought together over the wound and cornea with four sutures of silk. On account of the extent of the wound I preferred to use these instead of the pouch suture, thereby enabling me to better cover the wound without too much pressure upon the eyeball, and thus prevent any further escape of vitreous. I applied a dry dressing, which I removed every day.

On the fourth day the two stitches which had been placed over the cornea had cut through the conjunctiva. The other two over the wound in the eyeball still held the conjunctiva in apposition. The conjunctiva near the cornea had receded to its normal place. I removed the remaining sutures the next day and found that the wound of the eyeball had healed thoroughly, and was covered over by the conjunctiva which had been brought over it. There was very little reaction at any time of the process of healing. It is now six months after the injury, and the sight of that eye is perfect. The only visible signs of the wound are the cicatrix upon the face and a black line on the eyeball, showing some of the choroidal pigment. The upper part of the iris was torn away in clipping its prolapsed portion and the pupil is drawn in the direction of the wound.

A CASE OF CONGENITAL UMBILICAL HERNIA WITH PERFORATION.

BY C. D. SIMMONS, M. D., DUTCH TOWN, LA.

On November 30, 1897, I was called to attend Mrs. B. in confinement. Primipara, aged 20, in fine health. After a slow labor, she gave birth to a well developed male child.

When the time came to tie the cord, I discovered a peculiar malformation which gave me considerable uneasiness, and subsequently came very nearly ending the life of the infant. The cut (Fig. 1) is a fairly good representation of the cord at birth.

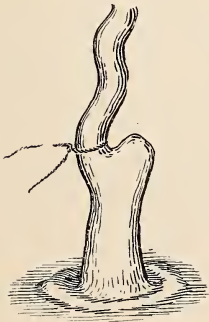


FIG. 1.—Appearance of cord at birth, showing point of deligation.

The question of greatest moment with me was, the proper point to ligate. At one side of the protrusion, beneath the covering of the cord, was a bright red spot, which made me fear hemorrhage; I finally decided to tie the cord above the hernia.

The protrusion was exceedingly firm to the touch when palpated; there was no gurgling or other symptoms to lead to a positive conclusion as to the exact nature of the trouble. It was also irreducible.

About twenty-four hours after the birth of the infant, I was hurriedly called, as the baby was not doing well. I was not

able to reach the case until twelve hours later, when I found the babe with very rapid pulse and respiration, in fact from all appearances the case seemed hopeless.

To my surprise, as soon as the umbilical dressings were removed, a large evacuation of feces occurred through the stump-like process. The coverings of the hernia and cord, which were the same, were gone, excepting a little necrotic tissue at the base of the protrusion.

After rendering the umbilical region as nearly aseptic and antiseptic as possible, I proceeded to ligate the extremity of the protrusion with a strong silk ligature. (Fig. 2.)

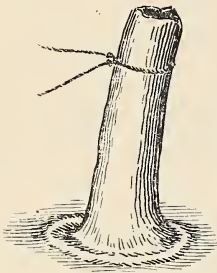


FIG. 2—Appearance of hernia 36 hours after birth. Ligature in position to prevent escape of feces.

A small soft Nélaton catheter, well anointed with soft soap and passed through the rectum into the colon, caused, in a few minutes, a natural movement of the lower bowel.

I ordered a few drops of olive oil three times a day by the mouth; also a drachm or two of soft soap and olive oil to be thrown into the rectum night and morning. From now on for forty-eight hours stercoraceous vomiting was frequent, when to the great joy of the parents, and to my relief, the baby had three large evacuations from the bowels in rapid succession.

After this, improvement was rapid. The hernia now began to recede, and at the end of the month the navel was in a perfectly normal condition. The protrusion having entirely returned to the abdominal cavity, I removed the ligature as soon as the perforation closed.

The most plausible solution of this case is that the omphalomesenteric canal failed to close before birth, allowing one wall of the intestine to be caught in the umbilical ring.

A PAMPHLET on "Guaiacuin," recently published, contains interesting colored plates showing the various stages in the life history of the malarial parasites. The firm of McKesson & Robbins have issued it to disseminate information regarding "guaiacol bisulphate of quinin," a new chemical compound.

Correspondence.

MEDICAL EDUCATION IN FRANCE.

It is with great satisfaction that I have availed myself of the better opportunity offered here to obtain some information in regard to the organization of medical studies in France, the educational attainments exacted of a candidate for the degree of Doctor of Medicine, the advantages offered the students, the expenses of a medical education, and similar questions which I have made a subject of inquiry. The facts I find are of interest, and especially so when compared to those pertaining to our own schools in America.

The medical faculties in France are all under the strict supervision of the government, and it is the government that authorizes the coveted degree to be conferred upon the successful candidates, who, after a rather long course of studies, have proven themselves worthy of the title. As a consequence of this supervision by the government, there is a marked similarity in the management of all the schools, which fact permits me to use the Bordeaux Faculty as a model, and the short description that I shall give of its organization, methods of teaching, etc., will apply in general to the other faculties of France. There are at the present day seven faculties of medicine in France, situated respectively in the larger cities of Paris, Lyons, Bordeaux, Nancy, Montpellier, Lille and Toulouse, and also another in Algiers. There are in addition to these a number of preparatory schools of medicine scattered over the country, and are known as "*Écoles Préparatoires de Médecine et de Pharmacie*," and "*Écoles de Plein Exercice de Médecine et de Pharmacie*."

These have no authority to confer degrees and are attended by those students who, not wishing to pass their entire course of studies in a faculty, find it convenient to begin in a preparatory school.

To obtain a diploma of medicine, the French student is required to study at least four years, and before beginning his medical studies he must be at least 17 years of age, must have previously obtained the degree of Bachelor of Letters and Philosophy, and must produce a certificate of studies in physics,

chemistry and natural history. A student can, if he so desires, pass three years of his course in a lower preparatory school or the entire four years in a faculty or in the higher preparatory schools spoken of as the *Ecoles de Plein Exercice*. These regulations apply equally to students coming from other countries, who, not having obtained the degree of Doctor of Medicine, wish to take a full course and obtain the French diploma for the purpose of practising the profession in France. Those having already obtained diplomas elsewhere and who wish to obtain also the French diploma *without the intention of practising in France* can do so by undergoing the regular examinations, and are not required to hold a diploma of Bachelor of Letters and Philosophy. Of those who propose to practise in France, however, the Bachelor's degree is rigidly exacted.

The libraries, laboratories and clinics are fully opened to foreign students, and those wishing to follow the courses simply, without applying for a diploma, can do so free of charge, but are not authorized to take part in the practical laboratory instructions given the regular matriculants.

During a course of four years' study the student undergoes a series of five examinations, and these examinations are not held at the end of the session as in the majority of our schools, but at stated intervals throughout the session. The first examination occurs at the beginning of his second year, in anatomy and a practical test in dissection.

The second examination, at the end of his second year, comprises histology, physiology, physiologic chemistry and physics; the third, after the third year, consists of operative surgery, pathologic anatomy, general pathologic bacteriology, obstetrics and a practical examination in pathologic anatomy; the fourth, during the same year, is a theoretic examination in therapeutics, hygiene, legal medicine, materia medica and pharmacology. After completing his fourth year, and before presenting his thesis, the student is subjected to a fifth and final examination, consisting of clinic tests in surgery, practice of medicine and obstetrics.

The candidate is then permitted to present his thesis, which, at a specified time, he is required to discuss in public before a jury composed of two professors and two professors "*agrégés*" of the faculty. Should the thesis be well written and the

author be able to discuss it intelligently before the jury, it is accepted by the faculty and the degree of "*Doctorat en Médecine*" is conferred upon the lucky candidate.

The cost of a four years' course of medicine is much cheaper than in America. It is estimated that during the entire course of studies the total amount exacted of a student is 1305 francs, or about \$260. This includes all matriculation fees, laboratory fees and thesis fee.

The Faculty of Medicine and Pharmacy of Bordeaux rank, after the Paris faculty, among the oldest and best known in France, and its *personnel* is composed of men who have attained their positions after years of active study and experience, and who together form a most able body of teachers in the science of medicine.

Besides a complete list of professors and instructors, there are professors "*agrégés*," or assistant professors, besides instructors in charge of complementary courses. The practical work in the clinics and laboratories is in charge of a force of subinstructors classed as chiefs of clinic, clinic assistants, prosectors, etc.

The positions of assistant professors, or "*agrégés*," are filled by competitive examinations, as are also those of chiefs of clinic, the term of office of the former being three years. The prosector of anatomy is appointed by competitive examination in anatomy, and students of the fourth year are admitted as candidates. The term of office is three years, with a salary of 1200 francs a year.

Students of the third year are allowed to compete for positions as assistant instructors in anatomy, being one year in office with a salary of 600 francs. There are three such positions in the Bordeaux Faculty. In addition to these coveted positions in the Faculty, the students here have access to twenty-four positions as internes and forty positions as externes in the hospitals of Bordeaux. To become internes they are subjected to a theoretical written examination and a public oral and practical examination before a committee of examiners composed of five doctors of Bordeaux, who are chosen by lot each year to serve on the examining board.

The internes are chosen for three years and are given board, lodging and a small salary. Externes have a similar competitive

examination and are allowed to serve three years also. After their first year's service the externes are obliged to compete for internship, and candidates for internship must have served at least one year as externe. The visiting as well as the resident staffs of hospitals are appointed through competitive examinations, the special regulations of which are controlled by the hospital managing boards.

Every year there are four prizes offered to the students by the faculty here for the best original composition on designated subjects; besides, several other prizes are offered both to students and graduates by interested and philanthropic citizens or societies, or have been left as legacies to be thus used to encourage the students in their work. These prizes, which range in value from 100 to 2000 francs, are the subject of much enthusiastic competition.

The students of Bordeaux have many advantages offered them for the interesting pursuit of their studies. The college building is filled with all the modern accessories for teaching purposes. First and foremost, in my opinion, is the large and complete library, containing a most valuable collection of medical works, and where the students have at their disposal not only the current literature of the day, but also publications dating back many years. The museum, pathologic and chemic laboratories are well organized departments, to which the students have free access at all times. Abundant clinic material and practical clinic work is to be always found in the large general *Hôpital St. André*, *l'Hôpital des Enfants*, and *l'Hôpital St. Jean* for the treatment of venereal diseases, besides the clinical annexes of the faculty.

Attendance upon the clinics and laboratories is strictly obligatory, and in the general teaching of medicine the greatest importance is attached to practical instruction in pathology and diagnosis.

The study of medicine in France is accredited with all its serious importance, and if a student is not fully imbued with its serious nature when he begins his studies, he will be fully convinced of the fact before he passes his "*cinquième*" and writes his thesis.

GORDON KING, M. D.

Bordeaux, France.

OUR NEW YORK LETTER.

The section on genito-urinary diseases met at the Academy of Medicine on March 8. Dr. G. K. Swinburne presented a case of epididymitis, occurring in a patient who gave no history of venereal trouble or traumatism. During an examination, however, by one of the members, he admitted that he had had some venereal trouble eight years ago.

At the same meeting, Dr. L. Weber reported the further history of the case of hypertrophied prostate, operated on by Bottini's method, and of which your correspondent gave a brief history in the February number. Improvement had certainly followed that operation. The patient, before the operation, was unable to pass his water without the use of the catheter; now, he can do so, up to the residual urine line only. There is no change in the amount of residual urine. Dr. Weber thought it was too early to state positively what the effects of the operation would be, but present indications pointed to a happy termination.

In the discussion that followed this report, the advisability of operation upon the same patient more than once was considered; many present spoke favorably of it, these reports being in line with those of Czerny, of Heidelberg, who reports favorable results, following secondary operations.

A stated meeting at the Academy of Medicine was held on the night of March 3, which might appropriately be termed "O'Dwyer's Night." It was held under the auspices of the Section on Laryngology and Rhinology. Dr. W. P. Northrup, who had been long associated with Dr. O'Dwyer, both in his home and in the hospitals, read the memorial address. Dr. William K. Simpson read a paper on "Intubation in Diphtheria." In speaking of the combined treatment of intubation and antitoxin, he said the prognosis was remarkably favorable, especially as compared with the results formerly obtained. A reference to this point in the report of the collective investigation of the American Pediatric Society gives the mortality in cases operated upon by intubation, in which antitoxin was administered as well, as 27.24 per cent. This is in strong contrast to the previous mortality, which ranged from 69.5 per cent. to 75 per cent. He had little doubt but that the prognosis

would continue to be more favorable, as a better understanding of the combined treatment was gained. In concluding his able paper, Dr. Simpson said: "What can be more fitting than to dwell for a moment on the results of intubation and its teachings? In a word, it has given us a comparatively simple means of combating a fearful emergency; it has taught us exploration of the larynx by the fingers; it has taught the mind and hand to work in quickest harmony; it has taught us alertness and deftness in meeting emergencies, and has opened up and created anew the entire domain of laryngeal stenosis. Let us then honor the memory of Dr. O'Dwyer for leaving to humanity such a legacy."

The munificent gift of 23,000 volumes, which were recently presented to the New York Academy of Medicine, by the Society of the New York Hospital, has been received at the academy, and will be placed at the service of its members as soon as the labor of labeling, arranging and recataloguing can be completed. With the exception of the library in the National Museum building at Washington, the academy claims the largest medical library in the United States.

On March 7, at the German Hospital, Dr. Kammerer operated upon a case of obstructive jaundice. The patient was a female, 52 years of age, housewife, who dated her present illness back five weeks, when she complained of dull pain in the epigastrium, accompanied by anorexia, nausea and constipation. This condition became progressively worse. During the past two weeks the pain had become acute, lancinating in character, located in the epigastrium, and, at times, radiating to the interscapular region posteriorly. She became icteric and vomited frequently. She had chills and rise of temperature. Constipation was obstinate, and she had lost much flesh and strength. At the time of operation, the patient was intensely icteric. The abdomen was not distended and its walls were lax. In the region of the gall-bladder, on deep pressure, a distinct tumor could be felt about the size of an egg. The liver was somewhat enlarged. The stools were clay-colored and the urine was full of bile pigments. From this patient Dr. Kammerer removed 208 gall stones. During the operation the patient went into severe collapse, which necessitated two intravenous saline infusions of 1000 cubic centimetres each.

E. F. S.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

MEDICAL MATTERS AT THE CONSTITUTIONAL CONVENTION.

Now that the Convention has disposed of the suffrage question for the present, it has begun the consideration of other subjects to be covered by the organic law of the State.

It behooves the profession to interest itself in all the medical matters that may come up for discussion, to give advice if need be to the committee on health, quarantine and State medicine, and to use their influence if necessary with members of the Convention.

As far as we can ascertain, only three questions have been presented to the committee:

An ordinance by Dr. Bruns of New Orleans, empowering the Legislature to create a true State Board of Health; one by Dr. Martin of St. Landry, referring to details of organization, salaries, etc., of the Board of Health; and a communication from Dr. S. E. Chaillé of New Orleans, advocating the abolishment of Coroner's Juries and the creation of the office of Medical Examiners instead, as well as containing numerous suggestions in regard to State Medicine.

The ordinance relating to the creation of a State Board of Health is in line with suggestions already made in the JOURNAL, and reads as follows:

“The Legislature is empowered to enact laws creating and defining the duties of a State Board of Health, consisting of representative physicians from the different congressional districts; and of Boards of Health for towns and cities incorporated under the laws of this State, and of parish Boards of Health.”

It is concise and to the point, leaving to legislative action the further shaping of the measures necessary to carry out its principles. We have, however, one amendment to suggest, which

is that a few words be added at the end of the paragraph to show that the town and the parish boards must be subordinate to the State Board.

There is some objection at the present time to incorporating in the organic law of the State the details proposed by Dr. Martin. We believe that the idea of relegating such things to the Legislature, as stated above, has, at least, a twofold advantage. First, if the general principle is embodied in the Constitution by the convention, the State Medical Society can, at its next meeting, make a thorough study of the question, and frame necessary laws to work out the principle, submitting them for adoption by the Legislature. Secondly, any details proving disappointing in their effects, could be amended at any legislative session, while they would be, of course, a fixture for some time, if included in the Constitution.

Most of the suggestions made by Dr. Chaillé are excellent, yet we doubt if the Convention will now have time to give them all due attention. The one to which most prominence seems to have been given is that referring to the coroner's office. The idea is not, as many believe, to abolish the position *in toto*, but only as at present constituted. The proposition is, briefly stated, to call the officer a "medical examiner;" to divorce the legal duties from the medical, leaving the former to the courts, where they belong; to abolish the cumbersome, useless, and (in the country) expensive coroner's juries. We deem the point well taken and hope to see a measure drawn on these lines obtain the approval of the members of the Convention.

The committee on health, quarantine and State medicine is composed of good men, and we feel sure they are prepared to study these and kindred questions fairly and will heed the advice and suggestions of the medical profession.

NEW ORLEANS A MEDICAL CENTER.

New Orleans is in many ways *sui generis*; it has always been so in a medical way. The atmosphere of the community has to a great degree made the medical profession of this metropolis a self-satisfied one, exclusive in their habits of medical thought and of medical advance.

That atmosphere has been none the less intellectual, and almost the whole profession here is a monument to the progressive spirit which has been active for the past half century. From the steady increase in importance and in usefulness of the Charity Hospital, the attendant opportunities for medical research and facilities for investigation have as steadily impressed themselves upon the generations of medical men. Within the few years just past, New Orleans has stepped out of her exclusiveness and has sought recognition at the hands of the profession at large. Not long ago the Southern Surgical and Gynecological Association met here, and the ranks of this body were recruited considerably among the local profession.

During the present month the American Surgical Association will hold its annual meeting in this city, again a direct recognition of the importance of New Orleans as a surgical centre.

Notwithstanding the dignified absence of professional self-assertion, we have not been idle during the years of our unrecognized labor. With two schools for medical education—the Medical Department of Tulane for undergraduates, and the Polyclinic for graduates—New Orleans has demonstrated the usefulness and the extent of the opportunities afforded here, until the actual work accomplished has already established recognition throughout the country.

Always ready to accept and maintain the constantly increasing standard for medical qualifications, Tulane has made herself the peer of any medical school in the country.

The Polyclinic started eleven years ago with a small faculty, and with no funds, but with enough spirit and energy to have the success which their present position in the postgraduate field of medical education demonstrates; a position receiving commendatory criticism in comparison with similar institutions elsewhere.

All educational centres bring about, sooner or later, a desire for advanced learning in the community they operate among. The local medical profession have responded to the example of effort, and have directly evidenced the result of the stimulus.

The Charity Hospital gives daily evidences of model and modern hospital methods; the Eye, Ear, Nose and Throat Hospital has been phenomenally successful as a charitable insti-

tution, dispensing judicious beneficence and affording exceptional educational facilities.

Side by side with these, the Orleans Parish Medical Society has forged ahead in progressive medical lines, showing each year an active interest in questions of public medical importance, meanwhile evolving amongst its members original work of unusual research and merit. A few years ago domiciled in a spare room of old Tulane Hall, this society has now comfortable quarters in a building identified with it, and with a library as valuable as accessible, while formerly it was seldom used.

The society has grown in numbers and in importance within the past few years, so that to-day a movement is on foot toward the acquisition of permanent quarters in a building which shall be the property of the society.

So that, when the American Surgical Association meets, we shall have no reason to feel that our modesty means that we are lacking in the elements which make us progressive, and if we are not often heard beyond our city confines, it is because we are willing to sacrifice the commercialism in medicine, the self-assertion referred to, on the altar of a self-satisfaction in the work we do for our own good.

Medical News Items.

THE AMERICAN SURGICAL ASSOCIATION will meet in New Orleans, on April 19, 20, 21 and 22. A very interesting meeting is promised, and the gathering will be representative of American surgery. Arrangements have been made for the entertainment of the members of this body during their meeting. Dr. Edmond Souchon is the chairman of the committee of arrangements, and we feel that the honors of the occasion will be well rendered.

THE TULANE ALUMNI HAVE ORGANIZED AN ASSOCIATION, embracing all the departments, collegiate and professional, with a view of increasing the general interest in the University.

The step shows a proper spirit and should be fruitful of good results. A committee on organization was selected, the alumin of the medical department being represented by Drs. S. P. Delaup and Wm. Perkins, a like number being selected from the other departments.

THE MISSISSIPPI STATE MEDICAL ASSOCIATION will hold its thirty-first annual meeting in Jackson, on April 20, 1898. The titles of papers to be read at this meeting should be forwarded by April 1, to the Secretary, Dr. J. R. Tackett, Biloxi.

THE TEXAS MEDICAL ASSOCIATION will meet this year at Houston, April 26, 27, 28 and 29, 1898. Every effort is being made to have an unusually large meeting to create renewed interest in this body, which has a large membership. Dr. J. A. Mullen, who was recently in New Orleans, is the chairman of the committee of arrangements.

THE CHAIR OF DISEASES OF THE EYE, EAR, AND THROAT at the Medical College of Virginia, made vacant by the death of Prof. Charles M. Shields, will be filled at the annual meeting of the board of visitors of the college, April 21. All applications, accompanied by credentials, should be forwarded to Christopher Tompkins, M. D., Dean, Richmond, Va.—*Medical Register*.

DR. RUDOLPH VON EZDORF, of the District of Columbia, and DR. MILTON H. FOSTER, of Pennsylvania, have recently been commissioned as assistant surgeons in the Marine Hospital Service. The former has been assigned to the New Orleans station.

THE MANAGEMENT OF THE ILLINOIS CENTRAL RAILROAD COMPANY has appointed Drs. S. P. Delaup and Luther Sexton as surgeons in New Orleans to succeed Dr. C. Chassignac, who had filled the position for nearly fifteen years and resigned recently owing to duties in other fields.

DR. F. E. DANIEL, of the Texas "Red Back," has written a work, shortly to appear, dealing with the experiences of a surgeon during the late unpleasantness. We shall await the appearance of the book with pleasant anticipations. We hope that it will meet with a favorable reception.

DR. EUGENE CLARK, lately of San Antonio, Texas, died in this city early in March at the age of thirty-seven. He was a graduate of the Medical Department of the University of Louisiana in 1883. After having practised for several years in Lockhart, Texas, he came to New Orleans to study the eye, ear, nose and throat, taking a course in the Polyclinic, afterward becoming resident surgeon of the Eye, Ear, Nose and Throat Hospital. Later he made a trip to Europe in further pursuit of his studies, locating finally in San Antonio for the practice of his specialty. He had already achieved a pronounced success when stricken by the malady which finally carried him off.

THE NEW YORK SKIN AND CANCER HOSPITAL, long situated on East Thirty-fourth street, removed on March 5 to its new building on the corner of Second avenue and Nineteenth street. The ceremonies of the dedication were quite appropriate, among which was an address by Dr. L. D. Bulkley, the practical founder of the institution, fifteen years ago. The new building is a modern fireproof structure of four stories, containing about sixty beds for patients. On the top floor there is a modern operating room, the Worden ward for children, and most of the private rooms. On the next two floors are four wards for male and female patients with diseases of the skin, or cancer. On the ground floor is the large out-patient room, with consulting rooms, pathologic laboratory, drug room, office, reception room, etc. In the basement there is a complete set of baths, besides the kitchen, laundry, dining rooms, etc. The lighting, heating and ventilation are of the most approved kind.

THE H. K. MULFORD COMPANY, the well-known manufacturers and chemists, have received an apology about certain charges made by Dr. Wm. C. Boteler, in the *North American Medical Review*, for November, 1897. Dr. Boteler printed a retraction in the January, 1898, number of his journal.

THE COMMITTEE ON PUBLICATION OF THE QUARANTINE CONVENTION of the South Atlantic and Gulf States proposes to publish a book of proceedings, to cost one dollar per copy. Any one desiring to subscribe for one or more should write to the

chairman of the committee, Dr. H. A. Moody, Mobile, Ala. The book will contain a mass of information concerning epidemics, quarantines, camps of detention and refuge, management of refugees; management of railway trains, mails and freights during an epidemic; principles and application of disinfection; theory and forms of pratique and health certificates; proper methods of establishing local, State and interstate quarantines; and the broad legal principles upon which all these measures must be founded to be lawful and effectual.

THE NORTH CAROLINA MEDICAL JOURNAL, a valued exchange, has changed its domicile from Wilmington to Winston, where we wish it increased prosperity.

THE CHICAGO POLICLINIC announces a special course in surgery, gynecology, skin and venereal diseases, commencing April 11, 1898, and continuing three weeks.

THE ROSTER OF THE VIRGINIA SURGEONS who served in the Confederate States army and navy is being made up to occupy a prominent place in the medical and surgical history of Virginia. It is requested that any information obtainable concerning such surgeons, consisting in the name, rank, date of appointment, and service of the surgeon, be sent to Dr. Arthur Jordan, 210 North Sixth street, Richmond, Va.

THE CITY COUNCIL OF NEW ORLEANS has elected to the Board of Health, Dr. Ben. Story and Mr. A. W. Moffett. Mr. Moffett, however, has declined the appointment.

Dr. L. F. Reynaud has resigned his membership upon the board, owing to ill health. It is generally regretted that the doctor has been compelled to take this step.

The new Board of Health deserves the approval of the community for the good work it has already accomplished, and for the thoroughness with which each step is taken toward sanitation

Abstracts, Extracts and Miscellany

Department of General Surgery.

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

FORMALIN IN THE DISINFECTION OF THE FIELD OF OPERATION.—Landerer and Krämer, of the Karl-Olga-Krankenhaus in Stuttgart, published in *Centrbl. f. Chir.*, February 26, 1898, some observations on the use of formalin in sterilizing the skin preparatory to an operation. They call attention to the difficulty of rendering the skin sterile, as instance the experience of Lauenstein, who was able in 124 cases, in spite of the most painstaking measures, to accomplish this in only forty-nine, or in only 40 per cent. The micro-organisms of the skin, suspended in the fat, remain firmly fixed. The fat-dissolving agents, soap and water, ether and others, seem to have proved the best means of cleansing and they think it doubtful if the antiseptic substances have added materially to the efficiency of the disinfection. The skin as a source of infection has been rather undervalued and its disinfection has been hitherto too superficial. We know now, however, from the observations of Garré and others, that micro-organisms may lie not only on the skin, but do actually penetrate into the glands of the skin. This being true, it was evident to them that a disinfectant, to be efficient, must penetrate the skin. This can only be expected of a gas. So, in August, 1897, they began to experiment with formalin. Bacteriologic tests showed that in 80 to 90 per cent. of cases the skin remained quite sterile. In correspondence with these results, they found in over sixty cases so prepared, disturbance of healing by first intention only three times, all three being herniotomies for the radical cure of large hernias, where pieces of the inducted hernial sac left behind broke down and were thrown off.

The technique of the method is very simple. After the usual soaping and washing of the whole body, the field of operation

is covered with a compress soaked in a 1 per cent. solution of formalin and over this some waterproof material. After six hours the bactericidal effect becomes apparent. They leave these compresses on from twelve to thirty-six hours, changing once or twice. If the formalin be left on longer than two days, a distinct hardening of the skin results, which is remarked in making the skin incision, and healing by first intention seems somewhat delayed. At the time of operation the usual shaving, washing with soap and scrubbing with ether is done, but these last measures alone have seldom rendered the skin germ free.

GRAFTING OF ULCERS AFTER THE METHOD OF THIERSCH WITHOUT REMOVING THE GRANULATIONS.—In *Deutsche Zeitschrift für Chirurgie*, for December 23, 1897, Köhler, of Berlin, reports upon the method of Thiersch without removing the granulations. He had done the operation on ulcers fourteen times in the past year, and the results seemed to him to compare favorably with those treated by the typical Thiersch method. In concluding the article he remarks: "The complete covering of the surface with thin strips of skin after the manner of Thiersch gives the best results; it is, however, not necessary to remove the granulations. The cicatrization follows in cases appropriate for transplantation, quite as surely when the strips or flaps are laid directly upon the granulating surface." However this may be, we can hardly believe that the permanent results will be so good, since one of the principles of the Thiersch method involves the minimizing of the resulting contraction by actually removing all granulation tissue. Thiersch especially emphasized this point in his original work published in 1874, and experience since that time has but confirmed his observations. It is reasonable to believe that if one dissects out as much as possible all cicatrix producing tissue the result should be better and more permanent, but these observations of Köhler are valuable in again showing that large strips of skin will actually adhere to a healthy granulated surface. In many cases, too, the method will be useful where from various causes the surgeon is not able to remove the bed of the ulcer, but must cover directly the granulating surface.

Department of Obstetrics and Gynecology.

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

DUDLEY REPORTS EIGHTY-EIGHT CASES IN WHICH PORTIONS OF OVARIES and tubes were removed and the remaining portions saved. In some instances the ovary was cross-sectioned or V-shaped portions removed, pus tubes were washed out, and the tubo-uterine stricture opened by passing a probe through the tube into the uterus. This conservatism is discountenanced in cases in which there is any odor to the pus, because it denotes either internal gonorrhoea or septic inflammation.—*American Journal of Obstetrics*, January, 1898.

APPLICATION OF STEAM WITHIN THE UTERUS.—Pitha (*Centralblatt für Gynäkologie*, No. 22, 1897) reports the result of use of steam in the uterine cavity upon forty-six patients treated in Pawlik's clinic during the past two years. The examination was also made of six uteri which were removed within a period of two weeks after the application of steam, although he fails to state whether the subsequent hysterectomy was made necessary by the operation. Steam is passed within the cavity by a simple appliance which he describes, narcosis being unnecessary, for a period of one minute. Sloughing occurred, but was not complete until about the end of the second week. Regeneration of the endometrium was complete at about the end of the fourth week.

Twenty-eight patients with hemorrhagic endometritis were treated and cured by this method. Also ten cases of hemorrhage following abortion, in which, however, decidual remains were first curetted away before steam was applied.

The advantages which he claims for this operation are the rapidity and ease with which it can be performed; the immediate hemostatic effect; the deep slough which it causes; the freedom of the operation from danger, and that anesthesia is unnecessary.

Among the disadvantages are the inequality of the sloughing

areas, and the after treatment is prolonged. He is not prepared to recommend it in preference to curetting.—*University Med. Magazine*, Feb., 1898.

DR. CLARK'S POSTURAL METHOD OF DRAINING THE PERITONEAL CAVITY and the introduction of saline solution before closing the abdomen, have been tried in twenty-seven cases by Dr. Burrage and the gynecologic staff of Elizabeth Hospital, Boston. In this position there is less nausea, less tympanites, vomiting is rendered easier, and there is little or no backache, in marked contrast to the pain in the back following most abdominal operations when the bed is flat. Patients experience no flushing of the face or headache as the result of the lowered head. There is some difficulty in deglutition, but this is overcome by the patient swallowing slowly. Thirty-six hours was adopted as the time for the elevation of the bed; a shorter period being followed by pains in the flanks and a more rapid pulse. A large increase (nearly 50 per cent.) in the amount of urine was observed after leaving salt solution in the abdominal cavity and shock was recovered from more rapidly.—*Annals of Gynecology and Pediatrics*.

THE EXAMINATION OF THREE UTERI WHICH WERE REMOVED months or years after one or both tubes had been removed, together with some reports gathered from medical literature, has led Dr. Emile Reis to believe that stump-exudates are in the main due to infection ascending from the uterus through the patulous tubal cavity. The infection passes along the tubal mucosa into the peritoneum, producing perisalpingitis, perimetritis, etc., and is the exact condition clinically termed stump-exudates. This explains quite satisfactorily the two classes, viz.: those occurring during the convalescence from the operation, and the class developing months after the operation. In the first instance infection spreads from the uterus, which contains active infection at the time of the operation and could not be rendered aseptic, while in the other class infection of the genital tract followed her convalescence.—*American Gynecological and Obstetrical Journal*.

Department of General Medicine.

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

THE TREATMENT OF APOPLEXY.—On clinical grounds M. J. Gracet, in *Médecine Moderne*, advises use of the word apoplexy in the old sense, symptomatic and synonymous with cerebral hemorrhage. Apoplexy, he says, is a syndrome connected with other material lesions besides cerebral hemorrhage, and, like all syndromes, it must be specified by its clinic characters.

Apoplexy is the sudden cessation of the cerebral action produced by a spontaneous alteration, organic or functional, of one or more parts of the brain, with preservation of the respiration, and of the circulation. The principal cerebral alterations which may produce apoplexy are the following: Cerebral hemorrhage, and less frequently meningeal hemorrhage; softening, either from thrombosis or from embolism; the cerebral congestion which is often observed in cerebral tumors; progressive general paralysis; disseminated sclerosis; the cerebral edema of the type observed in uremia; and finally the nervous, dyscratic and toxic apoplexies. The classification of apoplexies based on the nosologic species are arthritism, alcoholism, syphilis, paludism, hysteria, etc.

If no rational treatment is found to combat the clot in cerebral hemorrhage, or to combat the necrobiotic condition of the cerebral substance, it does not signify that there is nothing to combat the apoplexy itself and the ictus, which may disappear in spite of the persistence of the clot or of the seat of the softening. While it is admitted that the initial lesion is beyond all therapeutic aid, a rational and useful treatment of the apoplexy itself may be instituted.

There is no prophylactic treatment for apoplexy in general, but there is for the various forms, such as uremic, alcoholic, arteriosclerotic, syphilitic or paludal apoplexy. Whatever may be the pathogenic theory regarding apoplexy, it is essentially

characterized by a congestive condition of the head and by circulatory erethism.

Concerning the treatment, says the author, revulsion in all its forms should be employed to combat this congestion. Preference is given to the local revulsives—that is, to the application of leeches behind the ears and to the arms. Phlebotomy is not indicated unless there are internal circulatory erethism, general turgescence and a vibrating pulse.

Purgatives may also be used as revulsives, and, if the patient is able to swallow, from two to four capsules containing four grains of calomel may be given in milk, or, every fifteen minutes, a teaspoonful of the following mixture :

℞ Croton oil.....	1 drop.
Castor oil.....	} each 450 grains.
Sweet almond oil.....	
Syrup of lemon.....	
M.	

If the patient has difficulty in swallowing, or is not able to swallow at all, enemata containing glycerin and from 225 to 450 grains sodium phosphate in a decoction of 150 grains of senna should be employed. The third group of revulsives comprises the cutaneous revulsives, such as mustard plasters, aseptic compresses soaked in a hot boric-acid solution, etc. Blisters should be very prudently employed, and preference should be given to those of ammonia or chloral.

This revulsive treatment may be supplemented by cold applications on the forehead or on the top of the head ; these applications, however, must not be too cold, and must not be interrupted suddenly.

In addition to the revulsive treatment there are often, in apoplexy, indications for stimulation and sustenance.

The room should be kept thoroughly aired, and the patient should not be allowed to see many persons. Great cleanliness should be observed. The bladder should be watched, and catheterism practised if it is necessary ; the production of eschars should also be watched. As a diet, we may give milk and bouillon, if the patient is able to swallow. A small quantity of a decoction of cinchona, granulated kola, or, in certain cases, a little alcohol (from an ounce and a half to two ounces of cognac, kirsch, rum or chartreuse, may be given).—*New York Medical Journal.*

INCOERCIBLE VOMITING AND METHYL CHLORIDE.—Dr. Lefour, of Bordeaux, was called in consultation to empty the uterus of a pregnant woman suffering with incoercible vomiting. He would not consent to do this at first, and he started, instead, to spray methyl chloride, liberally, on the cervico-dorsal region of the vertebral column. The vomiting stopped and never reappeared since.—*Gaz. Hebdom*, March 3, 1898.

Department of Therapeutics.

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

SCHLEICH'S MIXTURES FOR GENERAL ANESTHESIA.—These so-called mixtures of Schleich may be made in three proportions. No. 1 is composed of:

℞ Chloroform.....	45 parts.
Petroleum ether	15 parts.
Sulphuric ether.....	180 parts.

Its boiling point is 38 deg. C.; it is only to be employed in brief operative procedures of about twenty minutes' duration.

No. 2 is composed of:

℞ Chloroform.....	45 parts.
Petroleum ether	15 parts.
Sulphuric ether.....	150 parts.

Its boiling point is 40 deg. C.

No. 3 is composed of:

Chloroform.....	30 parts.
Petroleum ether	15 parts.
Sulphuric ether.....	80 parts.

The boiling point of this mixture is 42 deg. C. No. 2 or 3 is to be employed when prolonged effect is desired. Only petroleum ether which boils at 60 to 65 deg. C. is to be used. The petroleum ether ordinarily found in pharmacies, which boils at 55 deg. C., is not suitable. Drs. Matas, Parham, Chassaingnac,

and Martin, of this city, have used mixture No. 2, and claim good results.

THE TREATMENT OF THE PAINS OF ATAXIA by Methylene Blue.—It is stated in the *Journal des Practiciens* that Lemoine has found this substance of value for the relief of ataxic pains. In two cases he failed to obtain good results from its use, but in five out of seven others there was a great diminution in the intensity and frequency of the pains, the relief being complete and prolonged. The pains which seemed to be best relieved by methylene blue are the darting pains in the limbs and the sensation as if a tight hand were being drawn about the patient. He asserts that the effect of the methylene blue is very rapid, and that the pain speedily disappears. In two or three hours the urine is colored blue. In this difficult class of cases Lemoine is of the opinion that methylene blue is one of our best remedies.—*The Therapeutic Gazette*.

EGG EMULSION OF COD LIVER OIL.—Cod liver oil, 500 *c.c.*; glycerite of yolk of eggs (U. S. P.), 175 *c.c.*; phosphoric acid dilute 35 *c.c.*; compound spirit of orange, 1.5 *c.c.*; sherry wine, 1.000 *c.c.* Triturate the glycerite of yolk of eggs in a mortar with the oil, added in small portion at a time, and thoroughly incorporate each portion before adding the next. Then, continuing the trituration, gradually add the diluted phosphoric acid, to which has been added an equal portion of sherry wine and the flavoring. Finally add sherry wine to make 1000 cubic centimetres and mix the whole thoroughly together.—*Monthly Retros. of Med. and Phar.*

THE SAFETY OF NITROUS OXIDE AND ETHER ANESTHESIA is noted by Thos. L. Bennett, M. D. In 1576, Clover, in England, demonstrated the fact that a very satisfactory anesthesia resulted from the successive use of nitrous oxide and ether. Nitrous oxide is almost an ideal agent for the production of anesthesia, though not for its maintenance. It is pleasant to inhale, rapid in its action, free from irritating or stimulating effects, and is the safest anesthetic known. Used to precede ether, a form of etherization is obtained that is exceedingly satisfactory. The patient, at the beginning, is spared any knowledge of the ether being used, none being administered before

unconsciousness from the gas. There is no coughing or choking, no "stage of excitement," and little or no mucus. When the ether is begun it can be pushed to complete anesthesia within two or three minutes.

This form of "gas and ether" anesthesia is practically that known in England as the method of Mr. Woodhouse Braine, and its recommendation is its simplicity. The advantages of "gas and ether" are obvious. Perhaps the greatest is the comfort to the patient. To be spared that period of etherization which precedes loss of consciousness is indeed a boon, and to be assured of this relieves the patient of much of the dread of the operation.—*Medical Record*.

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 Manual of Legal Medicine, for the Use of Practitioners and Students of Medicine and Law. By JUSTIN HEROLD, A. M., M. D., formerly Coroner Physician of New York City and County, etc. J. B. Lippincott Co., Philadelphia and London, 1898. F. F. Hansell & Bro., New Orleans.

A great deal of care has been exercised by the author of this work in the preparation of his material. In many ways the book differs from works on Legal Medicine now extant. More space than usual is given to the section on Toxicology, which is made quite distinct from Forensic Medicine proper. The unusual poisons are considered, the less important receiving little space, but still being comprehensively treated. The section of the work devoted to Forensic Medicine handles questions ordinarily considered, and in addition discusses such unusual legal equa-

tions as Life Insurance and Pharmaceutical Jurisprudence. There are several valuable tables in the book, among which are, notably, The Measurements of Criminals, The Identification of Bodies or Parts of Bodies, The Measurement of Red Blood Corpuscles and the Differential Diagnosis and Treatment of Coma. Dr. Herold's occupation of the office of coroner of New York has unusually qualified him for the preparation of this work, which fulfils in many ways the desideratum of would-be medical experts.

DYER.

The American Year-Book of Medicine and Surgery, under editorial charge of GEORGE M. GOULD, M. D. W. B. Saunders, Philadelphia, 1898.

This work at once challenges admiration, both from the quantity and quality of the labor it embraces. A digest of the scientific progress of the year, it is composed of eighteen parts, treating of as many distinct medical, surgical and special branches. Each part is edited by one or two competent and well-known writers, twenty-seven having collaborated with Dr. Gould. Consisting of over a thousand pages, the book is filled with useful and practical information that is up to date, no single page being superfluous. A detail which speaks well, on the one hand, for the thoroughness of compilation on the part of the editors and, on the other, for the interest and value of our own publication, is that the *Year-Book* contains no less than sixteen separate references to the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL on as many subjects.

The volume can be highly recommended to those who wish to keep up with progress as a complete and convenient reference to all that is new.

C. C.

A Practical Treatise on Traumatic Injuries of the Brain. By CHARLES PHELPS, M. D. D. Appleton & Co., New York.

This valuable work must find a high place in medical literature. Its language is clear and concise. One of its chief recommendations is that it deals with facts, and the conclusions

of the author are drawn from the closest study of actual cranial injuries.

In the treatment of brain injuries, attention is called to the grave responsibilities involved, and the surgeon is warned to weigh seriously the consequences to the patient.

Chapter VII, with illustrations, is valuable not only for the medico-legal points with which it deals, but for the information it contains regarding gun or pistol-shot injuries, showing the character and extent of wounds inflicted at different ranges.

The author concludes with the report of three hundred cases verified by necropsy, including nearly every known class of injuries to the brain.

The book would be an addition to any medical library.

MARTIN.

A Text-Book on Surgery, General, Operative and Mechanical. By John A. Wyeth, M. D. Third Edition, Revised and Enlarged. New York: D. Appleton & Co., 1898.

The third edition of this excellent work, now before the profession for more than ten years, has been brought up to date and presents, in a very interesting readable style the surgery of to-day. The book has many excellent features, such as the large smooth type, the numerous illustrations, which really serve the purpose intended, and the beautiful coloring of the vessels under the head of ligations, as witness the lingual vessels and relations on page 319 and the dissection of the neck on page 313.

We are sorry to see the Hodgen splint utterly ignored in the treatment of fractures of the thigh, especially of the upper third of the thigh. Mudd, in Park's surgery, we think, incontestably shows the value of this splint; Brown, of Birmingham, in the *New York Medical Journal*, August, 1897, gives additional testimony in its favor, and we can ourselves confirm the truth of these observations from a personal experience in three cases. But very little of the newer work, whether pathologic or therapeutic, is neglected, and credit for original suggestions seems to be unstintingly given, as witness the reference to Matas' method of reducing fractures of the zygoma.

As this aims to be a systematic and comprehensive text-book, all departments are considered, and we believe the due propor-

tion has been preserved as demanded by the relative importance of the subjects treated. We know of no single book on surgery that is so pleasing to us, and none, we feel sure, will prove more acceptable to the student of medicine. PARHAM.

PUBLICATIONS RECEIVED.

- Applied Physiology for Advanced Grades*, by F. Overton, M. D. American Book Co., New York, Cincinnati and Chicago, 1898.
Transactions of the Medical Society of North Carolina, 1897.
Transactions of the College of Physicians of Philadelphia, 1897.
The Year-Book of Treatment. Lea Bros. & Co., Philadelphia and New York, 1898.
International Clinics, Vol. IV, Seventh Series. J. B. Lippincott & Co., Philadelphia, 1898.
The Surgical Complications and Sequels of Typhoid Fever, by Wm. W. Keen, M. D. W. B. Saunders, Philadelphia, 1898.
Till Laran om Syphilis Congenita, by Prof. E. Odmansson.

REPRINTS.

- Two Cases of Intestinal Resection, with End-to-End Anastomosis.—Tonic and Spasmodical Intestinal Contractions*, by X. O. Wender, M. D.
Operative Treatment of Hemorrhoids, by Parker Syms, M. D.
Clinical Tests of New Remedies.—Authors and the Journals, by Seth S. Bishop, M. D.
Practical Thoughts on the Development of the Human Race and Obstetric Nursing.—Present Status of Puerperal Infection, by R. R. Kline, M. D.
Peculiarities of the Surgical Diseases and Injuries of the Neck, by E. Souchon, M. D.
Excision of the Coccyx for Fracture and Necrosis.—Septate Uterus and Vagina, Report of Five Cases.—Pericranial Cellulitis and Cephalhematoma, Consequent upon Use of High Forceps, by Ed. N. Liell, M. D.
Diet in Chronic Catarrhs of the Gastro-Intestinal Tract.—Plea for More Frequent Analysis of the Stomach Contents for Diagnosis.—Massage of the Abdomen, by Boardman Reed, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR FEBRUARY, 1898.

CAUSE.	White.....	Colored.....	Total.....
Fever, Malarial (unclassified).....	1	1	2
“ “ Intermittent.....			
“ “ Remittent.....			
“ “ Congestive.....	2		2
“ “ Typho.....	4		4
“ Yellow.....			
“ Typhoid or Enteric.....	6	4	10
“ Puerperal.....			
Influenza.....	4		4
Measles.....			
Diphtheria.....	4		4
Whooping Cough.....		2	2
Apoplexy.....	12	4	16
Congestion of Brain.....	7	2	9
Meningitis.....	4	2	6
Pneumonia.....	23	18	41
Bronchitis.....	14	12	26
Cancer.....	12	4	16
Consumption.....	47	38	85
Bright's Disease (Nephritis).....	19	18	37
Uremia.....	3	1	4
Diarrhea (Enteritis).....	8	1	9
Gastro-Enteritis.....	1		1
Dysentery.....			
Hepatitis.....	1		1
Hepatic Cirrhosis.....	8		8
Peritonitis.....	4	1	5
Debility, General.....	1		1
“ Senile.....	9	7	16
“ Infantile.....	1	1	2
Heart, Diseases of.....	33	20	53
Tetanus, Idiopathic.....		1	1
“ Traumatic.....		1	1
Trismus Nascentium.....	4	10	14
Injuries.....	10	8	18
Suicide.....	3	1	4
All Other Causes.....	72	30	102
TOTAL.....	317	187	504

Still-born Children—White, 19; colored, 17; total, 36.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 19.51; colored, 28.05; total, 21.99.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.15
 Mean temperature..... 57.00
 Total precipitation..... 6.20 inches
 Prevailing direction of wind, southeast.

May, 1898.

*Paullum sepultæ distat inertia
Celata virtus.*—HORACE.

New Orleans Medical and Surgical Journal.

[Established in 1844.]

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In a recent contribution to the *Medical News*, November 27, 1897, by Prof. R. W. WILCOX: "A Phase of the Treatment of Goutiness," the author arrives at the following conclusions:

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NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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MAY, 1898.

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 fifty reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.]

PREVENTION OF YELLOW FEVER AND THE QUARANTINING OF HOUSES TO STAMP IT OUT.

BY STANFORD E. CHAILLÉ, M. D., PROFESSOR ON HYGIENE, ETC., MEDICAL
DEPARTMENT, TULANE UNIVERSITY, NEW ORLEANS, LA.

All preventive measures against the spreading of yellow fever, likely to succeed, must be based on a correct conception of the infective nature of the disease. By infective disease is meant a germ disease, preventable by disinfectants, if these can be applied.

Is yellow fever merely infective and not at all contagious as is malarial fever; neither *directly* contagious, *i. e.*, from the sick directly to the well; nor *indirectly* contagious, *i. e.*, from the sick to water, milk, clothing, soil, etc., and by these *indirectly* to the well? Is it directly contagious as are gonorrhœa, syphilis, rabies? Is it both directly and indirectly contagious as are variola, scarlatina, rubeola? Or is yellow fever, like typhoid fever and cholera, indirectly contagious; and only possibly and most rarely, if ever, directly contagious?

Beyond question yellow fever belongs to the last class, and if typhoid fever, cholera or yellow fever are ever communicated from the sick directly to the well, this occurs only under exceptionally favorable conditions. Some reminders of this fact seem desirable.

An infected vessel arrived in 1861 at a clean city, Swansea, Wales; many sickened with yellow fever and fifteen died. Numerous non-immunes were exposed to the sick, and yet the only persons who were attacked were those who had visited the infected vessel.

In 1865 an infected vessel visited the clean and healthy city, St. Nazaire, France; forty persons had yellow fever, of whom twenty-three died. Many non-immunes were exposed to the forty sick, but only one person was attacked who had not either visited the vessel or been in close contact with infected things (*fomites*) that came directly from the vessel. This one exceptional case did occur under exceptional conditions and the evidence was strong that the disease was communicated directly from the body, or the clothing, or the air in the room of the yellow fever patient. But, two cases like the following one have taught me that cases universally credited with an extraordinary causation may prove to have been really due to very ordinary causes. A young man of excellent position and reputation, living some miles distant from an infected town, had an attack of yellow fever. He and every member of his household testified most positively that he had never visited the infected town, and this very strong evidence rendered indispensable an extraordinary causation, which was universally credited. A skeptical doctor, incredulous of this causation, gained the confidence of the young man, who, first pledging the doctor to secrecy, avowed that he, unknown to any member of his household, had secretly at night escaped from the house and on "wings of love" had spent several hours in the infected town, returning before dawn, undetected, to his home. Thus the extraordinary causation became a very ordinary one. Concealed illicit love could no doubt explain many cases reported as extraordinary.

But there is no need to go abroad for conclusive evidence that, under favorable conditions, yellow fever is not communicated from the sick directly to the well. Although the disease has very often prevailed in New Orleans, yet there have been, in every such year, instances of many non-immunes exposed to the sick in such clean and well-kept places as hospitals, asylums, convents and jails, without one of these non-immunes being attacked even after weeks of exposure to the sick; and if, after long

exposure, attacked at all, then only after the occurrence of cases in houses very near to the above-named places, thus indicating that those who were attacked owed their disease to infection by the locality rather than by the sick.

In 1897 the Touro Infirmary, in charge of Dr. Fred. Loeber, one of the most trustworthy, able and experienced physicians of New Orleans, admitted 105 patients with yellow fever, of whom 10 died. Twenty non-immune students and nurses continuously attended these patients, and there were about 100 patients sick in the infirmary with other diseases, and yet not one of all these 120 persons, long exposed to the sick with yellow fever, was attacked by this disease. It deserves notice that none of the 120 persons were permitted to go out and return to the infirmary, thereby running the risk of becoming infected outside.

The Isolation Hospital of 1897, in charge of the reliable and capable Drs. H. A. Veazie and H. P. Jones, admitted 202 cases of yellow fever, of whom 45 died; 18 non-immunes were long exposed to the sick, and more than 100 workmen were temporarily exposed to infection by the houses and premises, and yet not one of these 118 persons was attacked by yellow fever.*

Medical experience and its literature superabounds with like instances, elsewhere as well as in New Orleans, of the failure of yellow fever to communicate, when the conditions are favorable, its infection from the sick directly to the well; and this is also the case as to both typhoid fever and cholera. Granting that failures are negative evidence and that one affirmative outweighs all negative evidence, it is nevertheless logical to maintain that, when the failures are usual and very numerous, an occasional affirmative case of direct contagion, claimed by some to occur, is due either to defective observation or to very exceptional conditions. The knowledge of what such conditions may be is one of the great needs of the sanitarian.

Yellow fever, typhoid fever and cholera are usually only indirectly contagious, and all three are due to germs that grow in the human body. These germs (facultative parasites) also grow outside of the human body, as is proved by these two among other facts, viz.: The disease tends to become *endemic* in favor-

* See Report of Dr. Hamilton P. Jones, in *Four. Am. Med. Assn.*, February 26, 1898.

able localities, and non-immunes are liable to be infected by *fomites*, as well as by infected places. All three diseases are portable* from one place to another by common carriers, such as ships, steamboats and railroads. Finally, and more especially as to yellow fever, though an infected ship or *fomites* may be the origin of the first case, yet an imported case is the usual origin of other cases of the disease.

What is the explanation of the curious fact, that a person sick with cholera or typhoid or yellow fever often infects things and places, thereby indirectly infecting persons, but rarely if ever directly infects persons? The explanation for cholera and typhoid is now simple, though undiscovered until modern times. The alimentary canal is the usual channel not only for the entrance but also for the exit of the germ, and the germs in the fecal discharges are not apt to be swallowed by a well person unless the germs get into water, milk or other medium favorable to their vitality. Further, high authorities maintain that the germs in the *fresh* fecal discharges of cholera and typhoid fever are not infective and do not become virulent for some hours or days after their excretion, and not even then unless the germs find conditions favorable to their virulent growth in such things as water, milk, clothing, soil.

The fact that a person sick with yellow fever often infects his personal clothing, bedding, locality, and rarely if ever infects his personal attendants, must depend on causes similar to those given for cholera and typhoid. Hence it becomes of supreme importance to determine by what avenues of the body the yellow fever germs get in and out, and what are the conditions favorable to their virulent growth outside of the body.

How does the germ enter the body? Good evidence is lacking that the germs ever enter with any drink or food, but there is strong evidence and universal belief that the germs do enter by the respiratory passages. Sanarelli reports that he did succeed in infecting some animals by the respiratory passages, and also that his germ long survives desiccation.

What excretion contains the germ is unknown, but the following facts are very suggestive. In cholera and typhoid the

*There are many evidences that, in the United States, both cholera and yellow fever are exotic and not indigenous diseases, and one evidence is that both diseases begin at seaports and that interior towns, however favorable to these diseases their condition may be, are subsequently invaded.

digestive canal is diseased, and the discharges therefrom contain the germs; in gonorrhœa the urethra is diseased and the discharge therefrom contains the germs; in consumption, whooping-cough, diphtheria, the respiratory organs are diseased, and the germs are found in discharges therefrom; in variola, scarlatina, rubeola, the skin is diseased, and the epithelial scales of the skin are infectious. Now, in yellow fever the blood-vessels, the liver with the gastro-intestinal canal, and the kidneys are the chief seats of the disease; and the above lesson renders it extremely probable that the germs are excreted in the discharges of the blood, of the stomach and bowels, and of the bladder. However, in our ignorance, every excretion, even of the skin, should be suspected, and be as promptly and as thoroughly disinfected as may be practicable. Two additional points deserve notice. *First, it is questionable whether the frequent and characteristic hemorrhagic discharges have usually been disinfected as their importance seems to demand; second, ignorance of the excretion containing the yellow fever germ places the prevention of yellow fever at a decided disadvantage compared to the prevention of typhoid fever and cholera, hence no community where typhoid fever or cholera ever prevail has the least justification for upbraiding a community where yellow fever may prevail.

What are the ectanthropic (*i. e.*, outside the human body) conditions favorable to the virulent growth of yellow fever germs? The known conditions, in addition to non-immunes to grow in, are as follows: Hot, moist, calm weather, with close and foul air, the very conditions that favor, as noted by Dr. S. M. Bemiss, the growth of moulds on leather; deficiency of aeration (as in packed trunks, boxes, etc.); above all else, the same conditions that have induced all authorities to class and to denounce typhoid fever, cholera and yellow fever as pre-eminently "*filth diseases.*" Hence, the most important measure to prevent the ectanthropic growth of the yellow fever germ is CLEANLINESS, using this word in its broadest sense. In this sense it includes aeration, disinfection, water supply, drainage, sewerage, scavenging; and its application extends to the sick and the well, to the sick room, dwelling and municipality, to the soil, air, water and food.

The eradication of the sweating sickness, the plague and

typhus fever; the diminished prevalence of cholera, of typhoid and yellow fever and of consumption; the lessened morbidity and mortality of diseases generally, have all been due, in chief part, to the greater and greater cleanliness characteristic of progress in civilization. Experience has never failed to emphasize the great truths, that without cleanliness public health is impossible and that epidemic diseases flourish best where befoulment of soil, air, water and food are greatest. In cleanliness is to be found the sole permanent and certain protection from the spreading of yellow fever after its importation into a city or town.

Finally, as to favorable ectanthropic conditions, it must be admitted that even when all conditions, now known, coexist, yellow fever cases, though imported, often fail to spread, thus proving that there are conditions still unknown requisite to the spreading of yellow fever.*

Preceding facts and statements as to the infective nature of yellow fever have been submitted as an introduction to the consideration, now to follow, of special preventive measures.

The quarantine measures, successfully applied to prevent the spread of yellow fever by ships, which are houses on water, should be adopted, as far as may be practicable, for houses on land. These measures are (1) isolation of the ship; (2) disinfection not only of the ship, but also of everything it contains, including the clothing, bedding and other effects of all persons on the ship; (3) the isolation of the sick in a hospital; and (4) the removal of the well to a camp of observation, there to be detained until the period of incubation has passed. I believe that a period of five days is sufficient, provided that it be certain that there has been no exposure to infection from the beginning of this period.

Yellow fever is a disease especially of cities and towns, and in these the houses are numerous and for the most part side by side, with easy communication both in front and rear and often at the sides. Manifestly the isolation of most houses is much less practicable than of a ship.

* It deserves the notice of sanitarians that Sanarelli reports that his bacillus is especially an intra-vascular germ; a facultative anaërobie; grows best in meat bouillon with lactose and on moulds, and well in milk and other menstrua; preserves its vitality very long after desiccation, and long in sea and in brackish water; does not grow in acid media nor in sunshine, and is instantly killed by moist heat at 149 deg. F.

The "low-lying poison" of yellow fever tends to cling to surfaces and to the ground, and probably infects the superficial soil; hence there is grave reason to fear infection not only of the house and its contents, but also of its surrounding premises, and above all of the privy and other places where there may be accumulations of filth. Sanarelli warns us that infection is also to be feared of all parts of a house, its premises and their contents where moulds grow. These disadvantages are increased by the difficulty of access to the space and soil beneath the ground floor of houses, and notably by the fact that municipal health officers are rarely as well provided as are quarantine officers with apparatus, means and trained subordinates to disinfect. These comparative disadvantages are greatly increased when the sick are not removed from a house, because, as long as the sickness may last, the house, however often disinfected, may be reinfected. For these various reasons the disinfection of a house is apt to be less practicable than of a ship.

Hence municipal health officers labor under much greater disadvantages than quarantine officers experience in the execution of two most important preventive measures, the isolation and the disinfection of their respective infected buildings, a house and a ship. But these two are not the only nor the chief disadvantages of municipal health officers. The indispensable prerequisites for stamping out any epidemic disease are prompt diagnosis of the disease and as prompt notification to the sanitary officers, for, the spreading of an epidemic disease is like the growth of a spark—

"A little fire is quickly trodden out,
Which, being suffered, rivers can not quench."

In this matter of primary and supreme importance the municipal officer is at very great disadvantage compared with the quarantine officer. The latter has the strongest inducement to become an expert in the diagnosis of infective diseases; he, as promptly as he makes his diagnosis, is notified; he has his whole population, both the well and the sick, under his own observation; he has an adequate force of trustworthy and trained subordinates to execute his orders; and he is enthusiastically sustained by public opinion if he isolates in hospital any case of sickness even the least suspicious, and promptly consigns the well to a camp of observation and detention.

On the other hand, the municipal health officer of a large city has neither the sick nor the well under his own observation, but must depend for diagnosis and notification mainly on many doctors, as many as 343 in New Orleans in 1898. The freedom of the United States for nineteen years from any wide-spread epidemic has left alive few experts in yellow fever, a disease of which there are, in every epidemic, numerous mild cases, especially in children and in negroes, that can not be diagnosed with certainty by even the most skilful experts.* Whether the doctor has or has not diagnostic skill he is very loath to report a mere suspicion of yellow fever, as is indispensable to the success of any effort to stamp out the disease; because he thereby not only alienates his own clients, on whom his livelihood depends, but also alarms the public and arouses the hostility of the numerous and influential dependents on commerce. Finally, even if the municipal officer be lucky enough to be promptly notified of the first cases, he is rarely provided with the means and the men requisite to stamp out the disease.

The great practical disadvantages, above indicated, as regards diagnosis and notification, the isolation and the disinfection of a house render the more imperative the efficient execution by municipal health officers of the two remaining measures that are resorted to at quarantine stations, viz.: the isolation of the sick in hospital, and the removal of the well, who have been exposed to infection, to a camp of detention. And to these two measures should be added, as far as may be practicable, depopulation.

The preventive measures next to be considered are those whereby attendants and others, exposed to the sick in hospitals, are protected from infection; the measures that have so often succeeded in the past, and that proved so successful in 1897 in the Touro Infirmary and the Isolation Hospital of New Orleans. The measures most essential are as follows:

1. Prompt and thorough disinfection of all excreta from the sick;
2. Free ventilation or aëration of the sick room and of the house;

*There is good reason to hope that the serum-diagnosis of yellow fever, as developed and applied by the Drs. Archinard and Dr. Woodson, will greatly lessen the difficulty of diagnosing doubtful cases. See NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, February, 1898.

3. Prompt and thorough cleanliness not only of the body of the sick person and of his clothing, bedding and all personal effects, but also of the house and premises and even of the soil thereof ;

4. Free exposure to the sun's rays, which Sanarelli confirms as promptly germicidal to his bacillus icteroides ; and,

5. Non-intercourse between those inside and outside the hospital, so that there may be no risk of either exporting or importing infection. Experience justifies my profound conviction that if these measures be well executed there is no danger that the disease will ever spread to attendants or others exposed to the sick.

The successful preventive measures thus far submitted have prepared the way for the consideration of the perplexing question, what can be done to stamp out yellow fever when the first cases are not removed from their dwellings to an isolation hospital and when the well inmates are not removed to a camp of detention ?

A hospital is a house, and the measures successful in hospitals should be applied to quarantined houses ; but the execution of these measures in most houses is much less practicable than in well-constructed and well-managed hospitals. Even in the best homes isolation of the sick is exceedingly difficult as to attendants and relatives ; in many houses neither proper rooms nor attendants can be provided ; in the crowded lodging houses of the poor efficient isolation is hopeless.

Intercourse of the sick and attendants with other inmates of the house must be restricted ; for there is risk that attendants may be negligent ; that the clothing of those entering the room may be contaminated by excreta ; that these visitors, when they leave the sick room, may infect others by means of the infected clothing, or they may themselves be in the incubative stage and thereby infect some other house to which they may move.

No measures can be devised to prevent these risks that will not violate personal rights. For such violations the sole justification is "the greatest good for the greatest number ;" and there will always be many who either will lack faith in the efficacy of the restrictions imposed or will be selfishly regardless of the common welfare. Life's strongest influences, love and money, are aroused to resist sanitary restrictions inside the

home, and money, as well as love, finds a way to circumvent these restrictions. The temptations are great to violate the laws that impose these restrictions, and the frequent results are that inmates escape from the house both before and after the imposition of the quarantine; attendants and guards are deceived or bribed so that surreptitious visits are paid; the presence of sickness is concealed by falsehoods, and the sick are inhumanly deprived of medical care and needful attendance.

Restrictive measures tend not only to harass the inmates of a house, but also to alarm the public and prejudice it against the health authorities, whose capacity for good depends on the public's favor. A very active public opinion is requisite to induce every physician promptly to diagnose and notify the authorities of even suspected cases, when he not only alarms and offends many persons, but also alienates his own clients, on whom depends the daily bread of both self and family. A physician who is both a good citizen and a believer in the preventive measures adopted may consent to starve himself, but may hesitate to starve wife and child. But what is to be expected of a doctor who is not a model citizen; who dreads denunciation by the public as an alarmist; who knows that his own clients will abandon him for a rival, blind to every symptom of yellow fever until the law is ready to seize him, because death is about to seize his patient? For such reasons many physicians evade the law, and are rewarded therefor with favor and fees from the people to the great injury of the physicians who, for the public good, obey the law. And thus every restrictive measure to stamp out yellow fever depends on a mere possibility that the first cases may be reported.

A final impediment to the successful quarantining of houses deserves consideration. The sick are harassed and the well inmates, who are bread-winners, are deprived of occupation. Justice demands and good policy dictates that the public should fully remunerate every person on whom injury has been inflicted for the public good. If these just charges be added to the expenses indispensable for attendants, disinfection and the sustenance of all deprived of means of support, the sanitary problem, perplexing enough before, becomes still more discouraging.

The practical difficulties, now indicated in the application to houses of the measures, successful in the best hospitals, to prevent the spreading of yellow fever, are such that the quarantining of houses must be regarded as an experiment that has many more chances of failure than of success. But the results of an epidemic are so destructive to life and to commerce that sanitary authorities are justifiable in trying any experiment that offers any chance of success.

The experiment of quarantining houses was tried for the first time in New Orleans in 1897. It aroused very great popular dissatisfaction, and it greatly discouraged prompt diagnosis and notification. Some claim that, although the experiment was not well executed, its partial execution did much good by diminishing the number of cases and reducing the number of deaths to only 298.* Claims are apt to find their explanation in the adage, "The wish is father to the thought," and the above claim requires for its justification an explanation of many facts like the few following ones, derived from the yellow fever statistics of New Orleans.

Whenever this city has been visited by a grave epidemic the first cases have always occurred in May or June, and never later; none the less, first cases have often occurred in May or June without being followed by serious mortality. Whenever the first cases have occurred after July, there have never before followed as many deaths as the 298 of 1897, when the first reported death occurred on September 6. The statistics now to follow throw some light on (1) the claim of 1897, (2) the claims of previous years, (3) the chances of a slight mortality in one year being followed the next year by a grave epidemic. It must be kept in mind that until 1867 no measures were taken to prevent the spreading of yellow fever in New Orleans; that isolation of the sick was never tried until 1879, and the quarantining of both the sick and the well in houses until 1897.

* The United States Marine Hospital Service's "Public Health Reports" of December 31, 1897, reported the occurrence of cases or deaths of yellow fever in forty-one places. The disease did not spread except in eleven towns in Mississippi; five in Alabama, and in New Orleans and Memphis; and the total deaths in the forty-one places were only 454—*i. e.* one death to about 1000 population. Never before in the history of the South did such trifling mortality cause such panic and destruction of commercial interests.

YELLOW FEVER STATISTICS OF EIGHTEEN OF THE YEARS—1844—1878.

Year.	Date of First Case.	Total Deaths.	Year.	Date of First Case.	Total Deaths.
1844.....	July 20	148	1845.....	2
1846.....	August	160	1847.....	June 21	2,804
1850.....	May	109	1851.....	August	17
1852.....	July	456	1853.....	May 22	7,849
1857.....	June	199	1858.....	June 20	4,855
1859.....	August	91	1860.....	June 27	15
1866.....	August 9	185	1867.....	June	3,107
1873.....	July 4	226	1874.....	August 19	11
1877.....	November	1	1878.....	May 22	4,046

These statistics show, first, that in the five years, 1844, 1850, 1857, 1859, 1866, when no measures were taken to stamp out the disease, the deaths, even proportionately to population, were in no year many more than in 1897; second, that a considerable mortality in four years, 1844, 1850, 1859, 1866, was followed the next year by a much smaller mortality; while a mortality, varying from one in 1877 to 456 in 1852, in the five years, 1846, 1852, 1857, 1866, 1877, was followed the next year by a grave epidemic.

The year 1866 deserves special notice, because New Orleans had been exempt from an epidemic for the very exceptional period of eight years, the city was prosperous and the population of non-immunes was unusually numerous and the disease began early in August, and yet there were only 185 deaths.

The six years of 1871-76 are instructive. In two of these yellow fever began in July, in four of these years in August; the greatest number of deaths were 226 in 1873, and the fewest were 11 in 1874. During these six years the disease prevailed at about thirty-five different places in the South, and at some of these very severely—*e. g.*, in 1873 Memphis had 2000 and Shreveport 759 deaths. Dr. C. B. White, president Louisiana State Board of Health, during these six years, *claimed* that the escape of New Orleans during all of these years was due to the free use of carbolic acid as a disinfectant. But in 1878 there were 4046 deaths, notwithstanding the free use of carbolic acid.

A comparison between New Orleans and Memphis, during the two years, 1878 and 1879, when New Orleans had nearly seven times the population of Memphis, now deserves consideration:

In New Orleans, in 1878, the deaths were 4046; in Memphis, 5150. In New Orleans, in 1879, the deaths were 19; in Memphis, 587.

In 1879, yellow fever prevailed in twenty-five places in Louisiana, and the deaths in some insignificantly small places exceeded the nineteen in New Orleans. The escape of New Orleans in 1879 was *claimed* to be due, neither to carbolic acid nor to quarantining houses, but to "the isolation of cases and thorough and repeated cleansing and renovation of infected places," effected by the conjoint and exceptionally vigorous efforts of both the State and the National Boards of Health and the Auxiliary Sanitary Association. This claim and the succeeding one deserve more consideration than any others.

Finally, in 1882, there were only four reported deaths by yellow fever, and Dr. Jos. Jones, the president of the State Board, claimed that the escape of New Orleans was due to isolation of the sick and thorough cleansing and disinfection of the section surrounding the focus of infection "for at least four blocks each way around the focus." In this year, 1882, yellow fever severely prevailed at Pensacola, Fla., to the east, and at Brownsville, Tex., to the west of New Orleans. From 1882 to 1897, New Orleans was exempt from yellow fever.

Preceding facts wholly fail to justify the claim that the quarantining of houses in New Orleans in 1897 reduced the mortality by yellow fever. It may have done so, but this is far from proven. Can any other experimental measure be substituted for the rigid quarantining of both the sick and the well in houses?

Dr. Quitman Kohnke maintained, in an able report to the Mobile Quarantine Convention of 1898, that, instead of quarantining in a house with the sick all of the inmates who are well, "the bread-winners should be permitted to go out and return, provided they submit themselves to disinfection before leaving, and provided they, while outside, wear clothes which, upon their return and before visiting the sick room, shall be placed in a separate apartment not in close proximity to said room; the apartment to be kept in a constant state of disinfection and freely aired at frequent intervals during clear weather. The inmates, who may enjoy the privilege of attending to their business outside, shall not sleep in the infected room."

Dr. Kohnke denounces "absolute" isolation as the "horror of horrors that prompts men to escape the vigilance of the guards while strength is left to fly; and as the reason why a hundred cases are reported when a thousand may exist." Instead of absolute isolation he advocates that if "everything that leaves the sick room as well as everything that leaves the house be thoroughly disinfected, one or two visitors per day, who will remain for no longer period than fifteen or twenty minutes in the sick room and who will submit to thorough disinfection before leaving the premises, should be permitted." These measures to stamp out the disease should be limited in large cities to not exceeding fifty to one hundred first cases to every 100,000 population, should be executed by an adequate force of thoroughly trustworthy guards and efficient nurses, and should not cost more than \$20,000 for every 100 cases.

These ameliorations of rigid house-quarantine are advocated by Dr. Kohnke not because theoretically perfect but because he believes them to be the best that can be executed.

Dr. H. R. Carter, Surgeon United States Marine Hospital Service, also advocates ameliorations of rigid house-quarantine. His views, presented in the appendix to this article, deserve the utmost consideration, because he has unusual knowledge of yellow fever, and submits *minuter* executive details than others, and because few physicians have as recent and as great practical experience in the execution of measures to prevent the spread of yellow fever as he possesses.

CONCLUSIONS.

Some conclusions, deducible from the facts and views now stated in regard to the prevention of the spread of yellow fever after its introduction into a place, are as follows:

1. Cleanliness, domestic and civic and especially of the soil and of the air, is the measure, the most reliable as proved by experience and the least violative of personal rights, to prevent the spread of yellow fever. To be most efficient the cleanliness should be continued throughout the year; it is imperative from April to November; and after the disease has begun the lack of cleanliness is suicidal. Disinfection is a promoter of cleanliness, and cleanliness with disinfection should never be neglected for any other measures whatsoever.

2. When the first cases of yellow fever are found in houses, the sick should be promptly removed to an isolation hospital, and the well to a camp of detention for as long as five full days; and the invaded house and premises and usually the adjacent houses and premises should be thoroughly cleansed and disinfected.

3. A forced resort to the quarantining of both the sick and the well in houses has many more chances of failure than of success in large cities, unless both the public and the medical profession actively favor this measure; and it can not be justified except as an experiment that may possibly protect the public from very great injury. This experiment necessitates such gross and offensive violations of personal rights that it should be discontinued as promptly as its failure may become manifest.

4. The excretions from the sick contain the infectious germs of yellow fever, these excretions are probably the hemorrhagic, the gastro-intestinal and the urinary discharges, but *all* excretions should be promptly and thoroughly disinfected. The more efficiently this can be done the less numerous the persons whose personal rights need be violated. The sick room is the fortress wherein the enemy is known to be entrenched, and if this invisible enemy is permitted to escape from its fortress to bournes unknown, the chances of victory become very much more doubtful.

5. The success of measures to stamp out yellow fever depends on the application of these measures to the very first cases, hence prompt diagnosis and notification of these cases is the primary and supreme need of the executors of these measures. Cases, even suspected to be yellow fever, must be reported and hence occasional false alarms can not be avoided.

6. The vast interests of commerce are injured by any alarms, and the great influence of commerce is opposed especially to false alarms. Commercial interests influence the people and the people influence their physicians, and the result is that prompt diagnosis and notification can not be secured unless favored by the people and their physicians. Without this favor neither the quarantining of houses nor any other measure, violative of personal rights, has much chance of success. Hence every possible means should be used by health authorities to gain for their measures popular and professional support.

7. First among these measures is the dissemination among the people of sanitary knowledge and above all else knowledge of the infective nature of yellow fever, of its disastrous results to the public, and of the preventive measures indispensable for its extinction; the necessity for serious restrictions on the sick room and for some restrictions, in most houses, on the well inmates of the house; and the unavoidable duty of health officers to protect outsiders from an infected or presumably infected house.

8. Health officers should give to the people and their physicians every possible assurance calculated to reconcile them to violations of personal rights, and among these assurances are the three following:

First—Any damage inflicted on man, woman or child for the public good shall be promptly paid for by the public.

Second—Any restrictions imposed on any person shall be as slight and as brief as may be consistent with public safety.

Third—The execution of all restrictive measures shall be limited to a very short time. Localities, conditions and results vary so much that it is impossible to decide beforehand to how many of the very first cases restrictive measures should be applied. But, taking any one infected focus or locality in a large city, and supposing that, in spite of the preventive measures executed, one case was quickly followed by another, and these two as quickly by four more, and these four by eight; and that as the cases multiplied they became more scattered, and the links in the chain of infection became more and more difficult to connect, it would probably be wiser to end all restrictive measures, even as early as such an eighth case, and then to rely solely on persuasion and the vigorous prosecution of measures that do not necessitate offensive violations of personal rights, viz.: cleanliness and disinfection.

Very surely such public assurances as are above advocated would gain greater popular and professional favor than could be secured without them; and if this favor could be better gained by a definite promise, the health authorities could very safely pledge themselves not to persist in restrictive measures in more than 100 cases in every 100,000 population, for the probabilities are enormous that success or failure would be well demonstrated long before so great a number was reached.

Health officers should remember that a wise commander knows not only when to lead a "forlorn hope," but also when to retreat. Persistence, after manifest failure, in deference to the clamor of commercial or other interests, would be sure to cast odium on sanitary measures and officers, and thereby inflict grievous injury on the sacred cause of the "Progress of Preventive Medicine," whereon depends man's best hope for the alleviation of the worst of humanity's woes.

Attention is now solicited to the following appendix. It contains the views of Drs. Bell, Sternberg and Guiteras, whose extensive knowledge of and practical experience in yellow fever are unsurpassed by any living citizens of our country.

APPENDIX.

Interested in the quarantining of houses, as in all measures to prevent yellow fever, I have sought information from some of those who have the greatest knowledge of and the greatest experience with the disease, and I submit, in this appendix, views held by the veteran Dr. A. N. Bell, editor of the *Sanitarian*; by Dr. Geo. M. Sternberg, Surgeon General United States Army; by Dr. Jno. Guiteras, Professor Medical Department, University of Pennsylvania; by Dr. H. R. Carter, Surgeon, United States Marine Hospital Service; and by Dr. J. Y. Porter, State Health Officer of Florida.

The views of Dr. A. N. Bell as published in the *Sanitarian* of last December and March are as follows:

"Yellow fever is an infectious and a portable disease, but is not personally contagious. It has frequently occurred *de novo* in the United States. "By the *de novo* origin is not meant the *de novo* origin of its germs. It is upon the continuous existence of the germs or their spores in any place that, under congenial conditions, the fever is ever liable to recur, even though at long intervals." These congenial conditions are "filthy soil, foul matter, foul traffic, foul vessels and high temperature." Attempts to control the disease by quarantining people in their houses is a practice inconsistent with knowledge of yellow fever, even of the unprofessional. The requirements of practical sanitation are, (1) prompt cleaning up and disinfecting the locality; (2) prompt removal of the sick and the well from infected places

and things, with needful provision for the sick; (3) promotion of facilities for the well to reach healthy places, including their detention to divest them of infectious things. As to New Orleans it will be ever liable to the recurrence of yellow fever as long as there is not sewage protection against filth soakage of the soil and as long as the filth-saturated soil remains undrained.

The views of others, whose names have been cited, are contained in quotations from instructive letters addressed to me and are as follows:

SURGEON GENERAL'S OFFICE, }
WASHINGTON, January 4, 1897. }

My Dear Doctor Chaillé—Yellow fever certainly is not, under any ordinary circumstances, communicated directly from the sick to the well. I believe in thorough disinfection of the excreta of yellow fever patients and of all articles which have been used by the sick, and of all open privies, cesspools, and accumulations of organic material of all kinds which might possibly serve as a nidus for the hypothetical yellow fever germ. Disinfection of the mails, which has been practised in the South, appears to me to be absurd in view of the fact that we have for years received mails from Havana and other endemic foci of the disease, and that there is not the slightest evidence that the disease has ever been transmitted by the mails.* Non-professional persons generally assume that yellow fever is a highly contagious disease, and that the measures of prevention are similar to those which would be suitable for the prevention of small-pox or scarlet fever. But, as we know, there is no justification for this view, and it is surprising to me that so many physicians at the present day have adopted this theory as to the propagation of the disease. No doubt persons coming from an infected locality are dangerous to a community. But not because they have been in contact with the sick, but because they have been exposed in an infected locality and are liable to fall sick and establish a new centre of infection. This I think very probably occurs as a result of the deposit of excreta containing the specific infectious agent in localities where conditions are favorable for the repro-

* Dr. S. M. Bemiss, who, as president of the Yellow Fever Commission of 1878 had unusual opportunities for observation, reported that there was no instance of infection by first-class mail matter, and my own views concur with those of Drs. Sternberg and Bemiss.—S. E. C.

duction of this germ. This is the way in which cholera and typhoid fever are propagated; and, while the conditions relating to the propagation of yellow fever are different in some respects, the disease is to be grouped with cholera and typhoid fever rather than with the diseases propagated by personal contagion.

Very sincerely yours,

GEO. M. STERNBERG.

The succeeding letter from Dr. Sternberg was in reply to my special question, as follows:

“If an inmate of a house, say a tenement or a boarding house, sick with yellow fever, be not or can not be isolated in hospital, and the other inmates, who are well, be not or can not be removed to and detained, during the period of incubation in a camp of detention, then what measures can and should be adopted to prevent the healthy inmates, first, from becoming themselves infected; second, from conveying infection by fomites (clothing, etc.) to other houses they may visit; third, from establishing centres of infection in other houses to which they may remove during the incubative period?”

“House quarantining favors the first, but has been adopted specially to prevent the second and third, with instances of success, as claimed by Dr. Guiteras and others.

“I am anxious to secure your views, with permission to publish. While opposed to quarantining houses in great number and continuously during yellow fever prevalence, and, among other reasons, because convinced of its impracticability here in New Orleans, I have been inclined to believe that house quarantining was, under the conditions specified in my question, a justifiable *experiment* with the very first cases.”

Dear Dr. Chaillé: I entirely agree with you as regards the measures which should be taken to prevent the development of an epidemic of yellow fever when cases are discovered in any locality where conditions are favorable for the external multiplication of the germ. While the disease is not as a rule directly communicated from one individual to another, there can be no doubt that bedding and soiled clothing, which have been used with one sick with the disease, often contain the infectious

element and consequently require disinfection. The same is true in cholera and typhoid fever, and instances are known where these diseases have been directly contracted by laundresses who were handling the soiled linen of such patients. There is every reason to believe that in yellow fever, as in the diseases mentioned, the infectious agent is contained in the excreta of the sick, and our preventive measures should include the disinfection of excreta and of all articles which may possibly be soiled with the discharges of the sick. If the infectious agent is present in the blood of yellow fever patients, even in very small numbers, it must necessarily be present in the black vomit and in the contents of the intestine after hemorrhages have occurred. One method, in which the infectious agent may be transported from the sick room and transplanted to a favorable nidus for its external development, is by means of flies;* and I am disposed to believe that they constitute a very important factor in the propagation of the disease. While, therefore, yellow fever, cholera and typhoid fever are not usually contracted by direct contagion, what is known of the etiology of these diseases indicates the importance of isolating the sick and of disinfecting all articles which may possibly have been soiled by their discharges. I can easily understand how a person visiting the sick room might act as a carrier of the infectious material and sow the seed upon a favorable soil in another locality without himself contracting the disease. While flies are much more likely to convey the infection, because they at once go to any soiled spot upon the clothing or bedding, the clothing of individuals visiting the sick room may be contaminated by the same material, and it is therefore prudent, especially at the outset of an epidemic, to establish a rigid house quarantine when the patients remain for treatment in their own homes. In view of the great liability to the propagation of the disease through the agency of flies, it is evident that disinfection should be carried out in the sick room in the most thorough manner. Soiled bedding and underclothing should be promptly treated with a suitable disinfecting solution. In my opinion failure to arrest the development of an epidemic is usually due, first, to a failure to recognize the early cases, and, second, to

* Mosquitoes have also been suspected.—S. E. C.

the failure of physicians and sanitary officials to recognize the true source of danger, viz.: the excreta of the sick.

Very sincerely yours,

GEO. M. STERNBERG.

Washington, February 15, 1898.

My Dear Dr. Chaillé—I take pleasure in answering your questions. I should state first my belief that our experience with efforts toward stamping out yellow fever, *when it first appears*, is very limited. The opportunity does not often present itself. So-called first cases are seldom the first cases. I know of two occasions—that is, through personal observation—in which, notwithstanding the existence of the epidemic tendency, the disease has been stamped out. And it was stamped out by the strictest house quarantine, including disinfection. We were really dealing with first cases then.

I believe that house quarantine is advisable. I mean removal from the house of the well inmates to a place of observation. None but such *immunes*, as may be required, to enter the house. Guard and flag the house. Disinfection during and after the illness.

I believe we generally keep up these or similar measures when they are useless. If you stop them when you are convinced of their uselessness, you are blamed for stopping them too soon; you are also blamed if you keep them up too long.

With kindest regards I am, sincerely yours,

Philadelphia, February 7, 1898.

JOHN GUITERAS.

My Dear Sir—The subject naturally divides itself into house quarantine (A) before, and (B) during an epidemic; and by an epidemic I do most emphatically not mean “when the mortality of a disease equals or exceeds that from all other diseases,” but simply when it is fairly scattered and cases can not be traced to definite foci.

(A) *Before an epidemic* I regard a house quarantine as very advisable; but not to confine the inmates, save such as will

not go elsewhere, in the house with the fever patient. Remove them to a suitable non-infected place and there keep them under observation until the period of incubation be passed. If moved within a few days (about six) of the development of the fever case, these people will seldom develop fever; therefore they should be removed with all possible dispatch. All who have been exposed to infection should be under this observation in a suitable place or places. The house where the patient is and its inmates should be quarantined until disinfected. Complete disinfection of these premises should be done as soon as possible. Fever may occasionally be suppressed by this means and at least its rapidity of spread may be lessened, which, if it be late in the season, is worth much. When fever becomes epidemic, a house quarantine of this kind becomes inadvisable. The exact time this occurs may well be a question, but unquestionably when the effect of this kind of house quarantine is to cause successful concealment of cases, the chance of suppressing fever by this means has passed, and if this concealment be done to any considerable extent, instead of lessening the rapidity of spread, it will increase it by making foci of infection, which are unknown, and for which no sanitary precautions can be taken. When, too, the conditions are such that it is not possible to move a considerable proportion of the inmates of the houses to non-infected quarters for observation, the value of this kind of house quarantine, in lessening the rapidity of spread of the fever, is markedly lessened.

(B) *House quarantine during an epidemic.* Here, it seems to me, no elaborate or specially restrictive measures are advisable. Certainly, in large towns, and with the epidemic well under way, none are practicable. To attempt too much is to fail and to accomplish less than if less were attempted. The aim should be (1) to prevent infection of sick premises, and to keep the other inmates from developing fever from such infection as we may fail to prevent. (2) To prevent ingress of people in the sick room or premises. (3) To prevent conveyance of infection from sick premises to outsiders. (4) To destroy, as far as possible, the focus (presumably) thus established. Of these the second and the fourth are the most important.

(1) The removal of unnecessary fabrics from the sick room,

cleanliness, aëration and destruction or disinfection of discharges are about all that can be done to prevent infection of premises. The isolation of the inmates from the sick room should be advised and the advantage of sleeping in the upper story remembered. (2) The means which will prevent ingress varies with the respect for law and the good sense of the community. In some places an official prohibition and placarding is sufficient, and when this is not I doubt if the measures which would be efficient are advisable. In general, simply designating the houses and prohibiting entrance is all that to me seems advisable. (3) Perfection here would be change of clothing, disinfection of hair, etc., on the part of those leaving the house. Free egress would then be harmless. This can not in general be enforced, but the change of clothing should be recommended and ordered, and will be followed to a considerable extent, and to that extent do good. There is less risk in even free, unconditional egress than is generally believed. (4) The premises should be disinfected with as much thoroughness as will not lead to such obstructive measures—concealment of cases—as would defeat our ends. I found last year that the disinfection of the person—required in New Orleans of all in the house—was more objected to than everything else, and save for the patient I would not require this, and would be satisfied with soap and water for him.

Yours very truly,

January 8, 1898.

H. R. CARTER.

Dear Sir—As to house quarantine I can only say that from my point of view it depends almost entirely upon circumstances. I believe that until the disease becomes very general, atmospheric in fact, and beyond the control of the authorities, the houses should be quarantined. There can be no doubt that the first cases and those succeeding should be promptly isolated by quarantining the premises if there is any expectation of eradicating the trouble. Just how long houses should continue to be quarantined depends entirely upon circumstances. When the disease has become epidemic it would seem to be a waste of energy to quarantine new cases unless they occur in districts

very sparsely infected, and where there is some hope of successfully combating the infection.

Thanking you for soliciting my opinion, I am very truly yours,

JOS. Y. PORTER, M. D., *State Health Officer, Florida.*

Jacksonville, Fla., January 27, 1896.

Clinical Report.

A CASE OF MALPRESENTATION WITH AN UNUSUAL TERMINATION.

BY L. M. PROVOSTY, NEW ROADS, LA.

I was called on March 30 to attend Mrs. B. W. She is a stout multipara, about 40 years old.

She had been in labor twelve hours. I was informed by the midwife that she could not feel the child, although the membranes had ruptured and "tar" had come out.

Examination showed the breech presenting in the right sacro-posterior position, and not engaged. The os was widely dilated. The pains had stopped.

I administered 12 grains of sulphate of quinin, by mouth, hoping to rouse the womb to action; but with no effect. After waiting one hour, I gave chloroform, and tried to convert the breech into a footling presentation. During the manipulations I noticed that the breech was slipping up from my grasp, and that with my hand on the abdomen, I could feel the head descending. Acting on the hint, I began pushing up the breech with my right hand in the womb, at the same time assisting the descent of the head by external pressure. The result was that in twenty minutes my breech presentation had been converted into a vertex *in the first position*.

Still keeping my hand on the abdomen to preserve the condition of things, I allowed the patient to recover from the anesthetic, hoping that the pains would return. This not taking place, and fearing delay, I readministered chloroform and applied forceps. With some difficulty I drew the head down until it rested on the perineum.

Noticing, then, a slight return of the pains, I withdrew the forceps and stopped the anesthetic. As the patient recovered the pains increased and the child was expelled by natural means.

The placenta was easily expressed by the Cr  d   method.

At the present writing both mother and child are in good health.

I must confess that an experienced confr  re whom I met on the same day, and to whom I related my experience, mildly suggested that I did not know what I was talking about; but, authorities to the contrary notwithstanding, the facts are as above set down.

Correspondence.

NEW YORK LETTER.

As the result of the trouble arising in the faculty of the University Medical College of the City of New York over the transfer by the medical school to the University Council of the college buildings on East Twenty-sixth street, Drs. Polk, Witthaus, Woolsey, Gilman Thompson, Loomis, Stimson and others have resigned from the faculty and plans are being formed for the establishment of a new medical school in this city, to be conducted under the auspices of Cornell University. The first two years of the course would be pursued at Cornell, where excellent facilities for practical work in chemistry and physics are offered, the last two years could be pursued to much greater advantage in this city.

At a meeting held at the New York Academy of Medicine, April 12, Dr. Charles W. Allen presented a case of double epididymitis (tubercular) with result of tuberculin test. The patient was a male, 38 years of age, single. His family history was good, with no tubercular taint. Never had syphilis.

Eight months ago he first noticed small, hard, painless swellings in both testicles; under the iodides they increased in size without causing him any pain or discomfort.

Status presens: Well nourished, robust individual, with both

epididymes enlarged, very hard and nodular in outline and painless on pressure. Over the right apex there is dullness and prolonged expiration.

Rectal examination showed the right lobe of the prostate to be enlarged to the size of a horse chestnut, and was distinctly larger than the left lobe; about the centre of the left lobe was an exceedingly small nodule about the size of a pea. The seminal vesicles were massed and the fluid obtained was examined under the microscope, but no tubercle bacilli were found, nor any spermatazoa. No bacilli were found in the urine.

On March 28, 3.8 milligrammes of tuberculin were injected into the deltoid of the left shoulder, and six grains of creosote was given internally thrice daily. Nine hours after the injection the patient had chills, and was unable to sleep. He had pains in the head, in the back of the neck, anterior and upper part of the chest, both testicles and urethra, with an aching sensation in the glans, which caused him to rub and pull upon the glans. On arising he had abundant expectoration with coughing; this latter feature was quite unusual, his cough previously being dry and hacking. The day following, the cough continued, the temperature was 101 deg. F., the respirations labored, noisy and about thirty-two to the minute. The pulse was 100 and full. The tongue was coated and flabby. Both epididymes were tender, spontaneously painful, very slightly increased in size. Two weeks after the injection the patient feels well. He has less cough, and there is no tenderness in the epididymes. The sputum is found to be free from bacilli.

At the same meeting Dr. F. Tilden Brown presented a case upon whom he had done a urethro-plastic operation for stricture.

Under ether anesthesia, a generous external incision, begun just behind the scrotum, led down upon the stricture. On spreading out the urethra with retractors, a transverse pyramidal ridge was revealed, the total removal of which was evidently essential for any permanent beneficial result. This excision was effected by making two incisions on each side and parallel to the crest of the ridge, dissecting this anterior flap forward and the posterior one backward, each for nearly an inch. The dense, underlying tissue was exposed, and then dissected from its bed, first making parallel longitudinal incisions with a scalpel to its base and

then seizing the thin extremities of the intervening section with forceps and cutting them out with a sharp-pointed curved scissors. In this manner a considerable sized depression was left where the stricture had been. The overhanging flaps were brought together and sewn with chromicised catgut. A good-sized rubber drainage tube was introduced into the bladder and retained at a point posterior to the seat of the original stricture, the floor of which had been closed by suture. The patient made an uneventful recovery. A 32 (Fr.) sound is passed every two weeks. The function of urinating is perfect.

Society Proceedings.

MEETING OF THE AMERICAN SURGICAL ASSOCIATION IN
NEW ORLEANS, APRIL 19, 20 AND 21, 1898.

FIRST DAY.

Morning Session—DR. JOS. HOLT, of New Orleans, delivered an interesting and pleasing address of welcome. The various committees made their reports. The president of the association, DR. T. F. PREWITT, delivered his address upon "The Future of the Association."

After referring to the organization of the society, and to some of its former presidents, especially its founder, he dwelt upon the standing in the profession of its present and future members, and particularly to their advance in the art of surgery. He also referred to the many signs of progress of the nineteenth century, commenting upon the rapid strides in surgery, and concluded by urging the hearty co-operation of all distinguished surgical practitioners, writers and teachers in enabling the association to occupy the proud position its founders destined for it.

Afternoon Session—DR. CHARLES A. POWERS, of Denver, read a paper entitled "The Question of Operative Interference in Recent Simple Fractures of the Patella."

He commented on the most important tests, the structural and the functional, for these fractures. As to the mechanism, he believed that the majority of these fractures were due to muscular action in the patient endeavoring to save himself from falling, strongly contracting the quadriceps femoris at the time. He showed, in treating the question of the pathology, that there are but two fragments in the fracture due to muscular action, the upper one being generally the larger. The fractured surfaces are as a rule irregular and the line of fractures transverse or oblique. The author enumerated the conditions tending to cause imperfect union and the obstacles to union as follows:

1. Separation of the fragments are due to (*a*) retraction of the upper fragment from contraction of the quadriceps femoris and a slight drawing down of the lower fragment through a shortening of the ligamentum patellæ. (*b*) Effused blood.

2. Tilting of the fragments (this may be present to a marked degree and unrecognizable without operation).

3. Rupture of the tendinous expansion of the vasti and of the lateral portions of the capsule of the joint.

4. Prolapse of pre-patellar tissues into the breach.

5. Atrophy of the quadriceps femoris due to (*a*) disuse; (*b*) arthritis; (*c*) marked contusion of the muscle; (*d*) blood extravasated from the joint through the rent in the upper part of the capsule.

6. Arthritis of the knee joint, this possibly resulting in—

7. Adhesion of the patella. Further, though of little value, may be added:

8. Natural poverty of the blood supplied to the bone (rendered negative by the fact that the vertical fractures heal satisfactorily), and

9. Exceptional tendency to osteitis, seen in fat people, in the aged and in certain conditions of the blood.

In the non-operative management of fractured patella by mechanical means, the unsatisfactory results are evidenced by the large number of devices and plans which have been resorted to from time to time.

The author then spoke fully on the subject under the titles of "Limitations Attending the Operation; Selection of Cases," "Operative Procedures," "Time of Operation," "Immediate and Remote Results Attained Without Operation," and "Dangers."

DR. J. D. BRYANT, discussing, referred to the work of the late Professor Hamilton on this subject and called attention to the importance of, first, the degree of physical infliction; second, the duration of confinement in bed as bearing respectively on the comfort, health and business demands of the patient; third, the character and importance of the inherent and acquired complications of respective methods of action; and, fourth, the final burdens imposed by the sequels of different plans of cures. He was not inclined to suturing the patella, but thought it justifiable in selected cases.

At present the technique of operations which he employs consists (1) in making a short vertical incision, (2) removing the blood clots from the fractured borders with the interposed fibrous tissue that is sometimes present and cleansing the joint cavity, (3) draining the joint with a few strands of silkworm gut at the outer side, (4) uniting the fracture with a small wire so placed as to cause retention and proper apposition of the fragments, and (5) closure of the wound, antiseptic dressing and fixation in bed for two weeks, followed by plaster of Paris spica and out of bed on crutches.

He called attention to a mechanical treatment he had followed during the last twenty years and showed drawings of his method.

DR. M. H. RICHARDSON, of Boston, discussing, said: "If we are to consider the treatment of the patella in general among those whose experience is limited, we must take the position that a fracture should not be wired under any circumstances. The question of separation of the fragments is most important." Continuing, he said: "You are all doubtless familiar with the fact that if the patella alone is cut there is little if any loss of power of extension. I have shown this in my demonstration on applied anatomy by extending the foot with the subject lying on back and with the leg over the table, and then employing traction on the quadriceps. Complete section of the quadriceps will be shown by a sinking of the patella. If we can get complete control of extension in cases in which the fracture is limited to the patella there is no need of opening the joint, but if we have so extensive a laceration that we have no control of extension, then it seems to me that the advisability of wiring is to be seriously considered. The time of confinement in ordi-

nary cases of fracture of the patella should be six months. It has been shown that in the ordinary non-operative methods of the treatment of fracture of the patella they recur if the patient walks in less than six months. I should say that we are no longer to be influenced by the bad results which follow the too early use of the limb. The results in non-operative cases with extensive separation are extremely good. I have seen a sea captain who had extensive comminution of the patella and who can now walk perfectly well, although the accident occurred three months before he got into port. It is not necessary to repeat the good results which have followed bad cases, for we have all seen them. The question is whether we can predict a bad result.

“As to separation of the fragments: at the Massachusetts Hospital between 1888 and 1898, the records show that there were 128 cases of fracture of the patella treated there, of which 113 were simple fractures. Of this 113, 15 were wired, and of the wired cases two suppurated. I think one of the wired cases was my own, as I know in one of them there was a wide separation. This means to say that in fifteen cases of simple fracture, infection only occurred in two. I am convinced on my own experience that no wounds can be assuredly aseptic, for I believe that all cases are infected, and especially wounds that are opened for any length of time. The so-called aseptic healing is because the infection is not successful, and in my experience a wound of the knee joint is especially liable to infection, so that it is hard to prevent serious results. I consider therefore, that this operation of opening the knee joint is a very serious one and may be followed by the loss of the patient and death. I have opened the joint for foreign bodies, but have never felt that security that I should feel in an amputation or a removal of the breast. Perhaps the knee joint is not infected any more than any other part of the body, but it is less able to withstand the attacks of micro-organisms, and we must therefore consider interference with more deliberation.

“The best time to wire the patella is when we have demonstrated the failure of conservative methods and we should watch for the absorption of effused blood. It seems clear that effused blood is the best field for infection and, as has been shown by Halsted, the most successful aseptic operations are

those which are bloodless. We should wait a certain length of time to know just how bad the result is to be before going into the joint."

DR. JAMES F. MOORE, of Minneapolis, in discussing Dr. Powers' paper, said:

"I believe this paper represents the opinion of American surgeons to-day—that is, of those who are conservative, and by conservatism I do not mean that we shall refrain from operations. I think that Dr. Powers' personally collected opinions are a very good index in a certain way and they come from surgeons who have ample hospital facilities at their command. They report favorably on the operation, but do not advocate it as a universal practice and very few say that they always perform open arthrectomy. The argument, therefore, is in favor of a good surgeon with proper surroundings. The mortality rate in these selected cases is less than 1 per cent., and this is as small a mortality rate as you can get from any operation. There is only 3 per cent. of unsatisfactory results, which is eminently better than the very best results reported by treating fracture of the patella by non-operative means. It is of interest to notice that in these reported cases operations have increased in number within the past few years, and that the increase in number is in the hands of men who have done the most work in this line. Men who have operated upon these cases under favorable circumstances have been well pleased with the results and it would be of interest to know why those who are opposed to operative procedures are opposed to it. I know of one eminent surgeon who takes the stand that he is opposed to operative interference under any circumstances, and I happen to know that his experience is in one case in which the man died of a septic arthritis. This is an unfair conclusion.

"I agree with the author of the paper and with most of those who have written and spoken upon this subject that this operation of open arthrotomy is more dangerous than a simple laprotomy, as the lymphatic system can not be compared with that of the peritoneum. The peritoneum is able to take care of infections, while the knee joint can not do so, and Dr. Powers' conclusions are therefore justifiable, that open arthrotomy with the proper environment is proper. I do not believe, however, that this should be accepted as a general practice, as every tyro

will be making open arthrotomies and the graveyards will be filled by men who have had simple fractures of the patella. A man in general practice who is not sure of his asepsis has no right to open the knee joint, but if we do operate upon the knee joint open, arthrotomy is the only thing to be considered, as any other method savors of homeopathic surgery. Dr. Powers' results show that there is less than 1 per cent. of mortality, which is practically no mortality, and there is no operation which will give better results. I am sure that passing ligaments around the patella will be just as fatal, if not more so."

Dr. Powers does not commit himself as to the time at which the operation should be performed, but Dr. Richardson touches upon this point. "I must differ from him, as I do not see why he should defer operation, as we can be just as successful by operating immediately. We all know that the trouble often is to approximate the fragments, and we have to cut right and left in order to do this. We have got to stir things up just about as badly as they were stirred up at the time of the fracture, and I do not see, therefore, what we gain by waiting, so that I advocate immediate operation.

"There is one point in the matter of technique. I do not advocate the drainage of wounds in general, but I am in favor of the principle that when you are in doubt as to whether or not you should drain, don't do it. In open arthrotomy I think you should drain, because if you open a large joint there will be an excessive amount of discharge which will cause a mechanical distention and interference with circulation. I think, therefore, that you would get the best results by temporary drainage. I have had some experience in making a cutting operation for congenital dislocation of the hip, and have been driven to drainage sometimes in those cases.

"One point of considerable interest is that which refers to recurrence after operative procedures, and on this matter we have very little to go at the present time; but it is a good point upon which to make notes in the future. Should patients, who have been subjected to open arthrotomy, expect a recurrence? I believe not."

One point made by Dr. Richardson is interesting, and that is that the amount of separation is an index as to what should be done. "I think there is a chance for discussion on this point

All of us who have treated these cases know that the amount of separation is not a sure index of the amount of usefulness of the limb. In one of my best cases there is a separation of four inches, and yet he walks very much better than patients with only two inches of separation."

DR. W. S. HALSTED, of Baltimore, in discussing Dr. Powers' paper, said:

"I will confine myself to one of the most important points, and that is drainage. We do not drain the knee joint in order to get rid of micro-organisms. If the tissues are in such shape that they can take care of the micro-organisms they would do so better than they would if hampered by drainage. I think one who operates should wear gloves and use the strictest precaution."

In closing the discussion on his paper, Dr. Powers said he thought that if a surgeon felt competent to undertake this operation he should feel safe in dispensing with drainage.

DR. NICHOLAS SENN, of Chicago, read a paper entitled "Etiology and Classification of Cystitis."

DR. JOHN PARMENTER, of Buffalo, in discussing this paper, spoke of his experiment of injecting eight drops of sulphuric ether in a drachm of water into the bladders of twelve healthy men, and said that the odor of ether was detectable on the breath a minute after the injection,

DR. W. S. HALSTED, of Baltimore, said that one of his assistants in the hospital had taken the precaution to go through the abdominal wall instead of going through the urethra, and his results have been better.

DR. WM. ALEXANDER, of New York, in discussing this paper, said that in a series of investigations made some years ago, it was demonstrated that lymphatic tissue in the form of lymph nodules was a constant factor in almost every case, both of the bladder and ureters, and in a proportion of normal bladders in which he found the middle portion of the prostate enlarged he also found scattered in the mucous membrane around the trigone some accessory prostatic glands. He said that irregular catheterization of the bladder will cause over-distention of it, and in this way produce trauma.

Dr. Senn, in closing the discussion on his paper, said that in the urethra and neck of the bladder there is absorption, but the vesical mucous membrane proper has no absorptive power.

SECOND DAY.

Morning Session—DR. W. S. HALSTED, of Baltimore, read a paper entitled “Operative Treatment of Carcinoma of the Breast.”

He referred at great length to a large number of cases seen and operated upon, and gave the statistics of the results for the past nine years at the Johns Hopkins Hospital. He also referred in some detail to the operations themselves as performed by himself and his assistants.

DR. CHAS. B. NANCREDE, of Ann Arbor, in discussing this paper, said he would like to say a word in reference to age, as he was struck by the large number of cases occurring under thirty years of age.

DR. H. M. RICHARDSON, of Boston, referred to the good work done by Dr. Halsted in the past on this subject, and stated that he had observed many cases where there had been no infection of the axillary glands. In his opinion, three years was not enough to consider a case cured, and he had seen recurrences in from seven to ten years.

DR. J. D. BRYANT, of New York, stated that he had found enlarged glands in the axilla in some cases where the increase in size was not sufficient to warrant the belief that the glands were infected until a microscopical examination had been made.

DR. J. McFADDEN GASTON, of Atlanta, commented on the occasional disappearance spontaneously of carcinomata formation, and inquired if constitutional measures employed synchronously had been observed to have any effect.

DR. ROSWELL PARK stated that he had for several years been collecting data on the subject of the spontaneous disappearance of tumors.

DR. RUDOLPH MATAS, of New Orleans, in discussing this paper, gave a lengthy synopsis of twenty-seven operative cases of the breast or its vicinity, of which twenty-six were women and one was a man. There were no fatal cases from operative causes.

He spoke at length on fifteen complete operations performed since November, 1894, and gave the results in detail.

DR. F. H. GERRISH, of Portland, Me., referred to the excellent work done by Dr. Halsted. He considered one of the most important points was the necessity for the removal of all mammary tumors, whether benign or malignant, and laid great stress

upon the thoroughness with which operations should be performed.

DR. ROSWELL PARK, of Buffalo, read a paper entitled "An Inquiry into the Etiology of Cancer with Some Reference to the Latest Investigations of the Italian Pathologists."

After stating that the successful handling of this problem made it necessary for one to study tumor formation in the vegetable world before studying it in the animal world, and defining the pathological meaning of certain names of tumors, the author stated that the only two theories worth consideration in reference to malignant tumors was the embryonal and the parasitic.

He referred to the influence of sex, age, heredity, etc., on cancer, and also to its geographical distribution, and the fact that of late years the number of cases has considerably increased in various parts of the world, notably in Buffalo, N. Y.

The author concluded his paper by taking up the subject from a historical standpoint, commencing with the year 1872, and ending with the present time. This paper was not discussed.

DR. J. MCFADDEN GASTON, of Atlanta, read a paper entitled "Remedial Measures in Obstruction of the Common Bile Duct."

The doctor first commented upon the fact that although the physician usually treats these cases, they frequently come under the care of the surgeon. After referring to the treatment of jaundice by the use of pilocarpine, phosphate of soda and olive oil, he referred briefly to the surgical treatment of these conditions. His method is to make an incision about three inches long an inch and a half below the border of the costal cartilages in those cases where no enlargement of the liver is present. He did not believe that exploratory puncture was of much service and concluded by mentioning the various places with which an anastomosis may be affected. This paper was not discussed.

DR. H. W. CUSHING, of Boston, read a paper entitled "Traumatic Rupture of the Pancreas; Formation of Hemorrhagic Cyst; Operation Followed by a Pancreatic Fistula and Recovery."

The injury in this case was caused by a blow on the abdomen, followed by the formation of a large pancreatic cyst, which was evacuated five weeks after the injury. Considerable pancreatic

fluid escaped through the abdominal incision and the author took occasion to thoroughly study its characteristics. He believes this is the first case on record where such an exhaustive study has been made.

DR. W. W. KEEN, of Philadelphia, stated that he had seen one case, and DR. W. S. HALSTED, had seen four or five cases of pancreatic cysts.

DR. T. F. PREWITT, of St. Louis, referred to a case of enlarged spleen with which was connected a cyst of the pancreas. After operation the patient made a good recovery and a similar result followed operation upon a tumor in the median line believed to have been due to a pancreatic calculus.

DR. N. B. CARSON, of St. Louis, read a paper entitled "Cerebellar Tumors."

The author called special attention to the so-called cranial cracked-pot sound which is so frequently present in these cases but seems to have been overlooked.

DR. W. W. KEEN, of Philadelphia, mentioned a case in which this sound was elicited by a patient when examining his own head after fracturing the skull.

DR. DEFOREST WILLARD, of Philadelphia, quoted a case of a child less than a year old in which cerebellar tumor was suspected and in which the crack-pot sound was not obtainable, probably owing to the infancy of the patient.

DR. CARSON, in closing, stated that it was only in cases of acquired hydrocephalus and extensive fracture of the skull that this sound could be elicited.

DR. W. W. KEEN, of Philadelphia, read a paper entitled "A Case of Appendicitis in which the Appendix Became Permanently Soldered to the Bladder, Producing a Urinary Fistula."

This case occurred in a young man 24 years of age, on whom four operations were performed with only partial temporary relief, as death resulted from the conditions present.

The striking fact observed at the necropsy was the black color of the intestines in the lower part of the abdomen, and an examination showed that seven or eight feet of the ileum had been rotated to the right in one vast volvulus.

DR. ROSWELL PARK, of Buffalo, referred to two cases where pins had been found in the urethra, having probably been swallowed and then passed through the appendix into the bladder.

DR. N. B. CARSON, of St. Louis, reported a case of a pin in the urethra and also of a horseshoe-shaped appendix thirteen inches long which had recently come under his observation.

DR. KEEN thought it quite probable that the pin found in the urethra of his patient when a child could have been swallowed.

The following papers were read by title :

“ The Use of Animal Toxins in the Treatment of Inoperable Malignant Tumors,” by DR. GEO. R. FOWLER, of New York ; “ Hypertrophy of the Prostate Gland and Suggestions in Regard to Its Treatment,” by DR. L. C. LANE, of San Francisco ; “ Rapid Disappearance of an Apparently Hopeless Sarcoma of the Scapula with an Extensive Streptococcus Wound Infection ; ” “ A case of Violent Streptococcus Infection of an Amputation Wound with Three Months’ Treatment with Anti-toxin Injections of a Round-Celled Sarcoma of the Ankle,” by DR. MAURICE H. RICHARDSON, of Boston ; “ Some Cases Not Operable,” by Dr. DAVID W. CHEEVER, of Boston.

THIRD DAY.

Morning Session—This was devoted to council and executive sessions.

Afternoon Session—DR. T. F. PREWITT, of St. Louis, read a paper entitled “ Gunshot Injuries of the Spine, with Report of a Case.”

The author divided these injuries into three classes : (1) those that simply fractured the arches ; (2) those that invade the canal, crushing the cord and damaging the vertebra, and (3) those complicated by serious injury to the abdominal or thoracic viscera.

The author concluded his paper by stating that (1) it is the duty of the surgeon to advise immediate operation in all cases of gunshot wound of the spine, provided the wound has involved the posterior or lateral parts of the spine at an accessible part, unless the condition of the patient is such as to indicate clearly that he is hopelessly crippled ; (2) to wait to see whether nature is competent to restore the damage is to wait until irreparable damage is done in many cases ; (3) the presence of complications due to penetration of the great cavities and

injury of the viscera will influence the question of operation, but not necessarily forbid it.

DR. W. W. KEEN, of Philadelphia, spoke in favor of operating for gunshot injuries of the spine in certain cases.

DR. MAURICE H. RICHARDSON, of Boston, felt great hesitancy in the treatment of these cases on account of the difficulty of diagnosis.

DR. H. F. BURRELL, of Boston, was in favor of opening up and examining these injuries unless contra-indicated by shock. He referred to a number of interesting cases which occurred in his experience, giving the treatment and results in each case, and quoted from a report made by him in 1894, which contained statistics on this subject extending over a period of over thirty years.

DR. N. B. CARSON, was also in favor of operation under certain circumstances and referred to the benefit derived at times from the suspension apparatus and the plaster of Paris jacket.

DR. P. S. CONNER believed operation advisable as a general rule.

DR. F. S. DENNIS, of New York, had obtained excellent results by the use of the plaster of Paris jacket combined with large doses of the iodide of potash.

DR. W. H. CARMALT reported variable results from the use of the plaster jacket.

DR. W. S. HALSTED, agreed with the previous speakers and reported one successful case.

DR. PREWITT closed the discussion by referring at some length on the various comments made by the previous speakers.

DR. JAMES E. MOORE, read a paper entitled "Hysteria from a Surgical Standpoint."

The author devoted the majority of his paper to various affections closely simulated by hysteria and warned surgeons to at all times be on their guard.

The following papers were read by title:

Nosology and Morphology of Tumors, True and False, by Dr. EDMOND SOUCHON, of New Orleans.

Radical Cure of Femoral Hernia in the Light of Recent Methods, by DR. RUDOLPH MATAS, of New Orleans.

A Case of Fecal Communication, by DR. GEO. R. FOWLER.

The following officers were elected for the coming year: President, Dr. W. W. Keen, of Philadelphia; first vice president, Dr. A. Vanderveer, of Albany; second vice president, Dr. C. H. Mastin; secretary, Dr. H. L. Burrell, of Boston; recorder, Dr. DeForest Willard, of Philadelphia; treasurer, Dr. G. R. Fowler, of New York. Delegates to the Association of American Physicians and Surgeons, Dr. Wm. M. Mastin; alternate, Dr. F. H. Gerrish, of Portland, Me.

Place of next meeting, Chicago, Ill., at a date to be determined later.

Those present at the New Orleans meeting were Drs. Bryant and Dennis, of New York City; Burrell, Cushing and Richardson (M. H.), of Boston; Park and Parmenter, of Buffalo; Prewitt and Carson, of St. Louis; Keen and Willard, of Philadelphia; Dandridge, Ransohoff and Conner, of Cincinnati; Carmalt, of New Haven; Gaston, of Atlanta; Gerrish, of Portland, Me.; Halsted, of Baltimore; Marks, of Milwaukee; C. H. and W. H. Mastin, of Mobile; Moore, of Minneapolis; Nancrede, of Ann Arbor; Powers, of Denver; Senn, of Chicago; Weist, of Indiana; Souchon and Matas, of New Orleans, with Dr. Alexander, of New York, and several other invited guests.

On the first night of the meeting, the annual dinner of the association was given at the St. Charles Hotel. Only a few of the New Orleans profession were present, and these in official positions. On the second night a handsome reception was given at the residence of Mrs. T. G. Richardson. The last night of the meeting a reception was tendered the visitors at the St. Charles Hotel parlors, at which there were quite a number of the profession of the city.

The association was lunched at the Boston Club, at the Grunewald Hotel, and on the last day of the meeting by the New Orleans Polyclinic at Antoine's restaurant. The last minutes of the meeting were spent at table after the Polyclinic lunch—a very pretty compliment to the hosts.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

THE MENACE TO MEDICINE.

In a late number of the *Medical News*, Dr. R. W. Wilcox, of New York, has written ably on the "Parasites of the Medical Profession." He deals with the question involved in a semi-jocular way, but with a vein of serious reflection which deserves the notice of all medical men.

We are prone to blame the laity for their indulgence in charlatanic methods, while we ourselves suffer their existence without organized protest, often through fear of popular disfavor.

The quack has grown into the community, until he is in large degree an organic part of it and the strongest effort is made in avoiding him rather than in eradicating him. The medical profession enjoys very little political favor because they are too accustomed to accept their relation to the community as a mere utensil, of a particular kind of service, to be laid up on a shelf until the need comes again in time of sickness. Besides all this, the growing numbers of medical men tend to provoke a baneful competition, hard of restraint in this age of commercialism. Among ourselves we do condone faults of omission and commission in ethics and in conduct, but because we are considerate to ourselves is no reason why we should not protest when the "parasites" threaten. The daily newspapers remind us perpetually of the extent to which the patent medicine man, the faith curist, the universal specialists and their congeners prey upon the easy gullibility of the average citizen. With all these we have been long suffering, and even if here and there a half-interested legislative body has passed enactment directed at protecting the public and the medical profession alike, the very victims of the traffic have obstructed proper punishment. So the way has been made clear, and while day by

day the standard of medical education is being raised within the ranks of the medical profession, out of a sense of very self-respect, the public invites, with open arms, the thieves who come in sheep's clothing, with a handful of promises and not an atom of fulfilment. Pretensions then of kinship with this medical profession, dignified and timorous as it is, is claimed by ignorant charlatans and impostors who hope to foist themselves upon a none too critical public by claiming relationship and, therefore, protection. The latest of these, coming, *vi et armis*, are the self-styled "osteopaths," ready to become the iconoclasts in medical practice, prepared to restore members diseased and faulty, designed to substitute the science of medicine, which, with a blow is to be laid aside forever for the new comer. Coming into existence almost over night, these twentieth century salvators have already demanded, and in some States (to their shame be it said) have received legal recognition. The JOURNAL always champions justice, and as readily disillusions fraud, and here and now we wish to warn our friends, and at the same time to advise them that they may, when the time comes, prevent the encroachment upon their privileges by another "pathy," whose chief distinction is pretension.

A PRACTICAL BOOK ON YELLOW FEVER.

Medical literature will shortly be enriched by the addition of a valuable work. Dr. Just. Touatre, of this city, has written an interesting volume on the diagnosis, prognosis and treatment of yellow fever; the JOURNAL will be its publisher and it is to be issued on or about June 1.

Dr. Touatre, a Frenchman by birth, on the eve of his departure for his native land, was desirous of leaving to this country a token of his grateful appreciation of the many kindnesses showered upon him. This book is the result.

He could not have chosen better. The moment is timely for the publication of something useful on yellow fever, for every one realizes the difficulties that were not long ago encountered by many able men who either had never had a tussle with Yellow Jack or who, from disuse, had forgotten their knowledge of his ways. In addition, Dr. Touatre is eminently fitted for

the task; a resident of New Orleans since 1865, a practitioner during nine epidemics, he has treated over two thousand cases of the disease, a large proportion of his clientèle having naturally been among the foreign population; more, he has from the first been a scientific observer of the malady, has taken careful notes and observations, the cream of which will be placed at the service of the readers of his book.

The JOURNAL takes pride in announcing the publication of a thoroughly clinical treatise which will enable any competent physician to recognize a case of yellow fever even if he has never seen one before, which will give a new appreciation of the facts to those who already know the disease, and which will impart to all many important ideas concerning a rational, scientific and successful treatment.

The book will be neatly bound in cloth, of attractive make-up, and as a moderate sum will secure it, we have reason to expect that a first edition will quickly be exhausted.

LOUISIANA STATE MEDICAL SOCIETY.

After much hard work, the committee of arrangements have obtained from the railroads a rate of one fare for the round trip for the meeting of the society this year. This should encourage the members to make every effort to be present. The proper effort on their part will lead to a large attendance and in part make up for the lack of a meeting last year.

There is no danger of overflow this year, no sickness in the city, and we are fully protected against Spanish invasion. Let all members come who can possibly do so, and we will have a successful meeting.

Medical News Items.

THE AMERICAN MEDICAL ASSOCIATION will hold its annual meeting in Denver, Col., on June 7 to 10, 1898. A number of prominent men have expressed the intention of being present, and an excellent scientific program is assured. Elaborate arrangements have been made for the entertainment of members and their families, and as Denver is a city of many and varied attractions, the meeting ought to be large and a success from all standpoints. Cheap rates have been secured, those intending to go having the choice of several routes advertised in this and previous issues of the JOURNAL.

TO PREVENT A REPETITION OF THE YELLOW FEVER EPIDEMIC of last year, and of the unnecessary restrictions which might follow sporadic cases, unusual activity has been displayed by the health officials of the Southern States, two meetings of importance in this direction having been held, one in New Orleans and a subsequent one in Atlanta. In New Orleans the result of the conference directed certain rules to be observed in the disinfection and detention of passengers, freight, baggage, etc., with the system of camps to be arranged for these purposes. At this meeting, Louisiana, Mississippi, Alabama, South Carolina and the United States Marine Hospital Service were represented, together with members of the exchanges and officials of the railroads and steamship lines of this section. In Atlanta the meeting simply expanded the suggestions of the New Orleans conference, wisely adding regulations of importance. The convention was more representative, delegates from Virginia, Florida, Georgia and Missouri being present in addition to the delegates from the States above named. The details have been fully published and republished in the daily press, so need no repetition here.

THE THIRD ANNUAL MEETING OF THE WESTERN OPHTHALMOLOGIC AND OTO-LARYNGOLOGIC ASSOCIATION was held in Chicago April 7 and 8, 1898. The address of welcome was made by Dr. F. Henrotin, president of the Chicago Medical Society; Dr. A. Alt, of St. Louis, responding. The annual address was read by

President B. E. Friar, of Kansas City, and, after the routine business, a scientific communication was read by Dr. Herman Knapp, of New York City. The Ophthalmologic and Oto-Laryngologic sections each held separate and joint sessions, at which articles of interest were read and discussed, and clinical cases were exhibited. Nothing was spared that would contribute to the entertainment of the visitors. The following officers were elected for the ensuing year: President, Dr. J. Elliott Colburn, of Chicago; first vice president, Dr. W. Scheppegrell, of New Orleans; second vice president, Dr. Casey A. Wood, of Chicago; third vice president, Dr. H. Gifford, of Omaha, Neb.; treasurer, Dr. W. L. Dayton, of Lincoln, Neb.; secretary, Dr. F. M. Rumbold, of St. Louis, Mo.

New Orleans was unanimously selected for the next meeting, which will take place just before the Mardi Gras of 1899, allowing the members to conclude their session with the gaities of the Carnival.

THE MEDICAL COLLEGE OF ALABAMA held its thirty-second annual commencement at the Princess Theatre, in Mobile, April 8, 1898. Dr. Cobb Nichols, of Mobile, delivered the salutatory and Dr. L. L. Duggar, of Gallion, Alabama, the valedictory. President James K. Powers, of the University of Alabama, made an address in congratulation of the union of the medical college with the University, a long desired event, already provided for by law some years ago. The feature of the evening was the report of Dean Ketchum, an able paper on the history of the college, reviewing its gradual advancement to the present standing, which is one that the faculty can feel proud of.

THE LADIES OF NEW ORLEANS HAVE ORGANIZED A CLUB for the study of household economics, before which a number of New Orleans physicians have consented to lecture on subjects kindred to medicine.

THE INTERNATIONAL JOURNAL OF SURGERY will remove May 1 to the Woodbridge Building, No. 100 William street, Brooklyn.

DR. J. C. EGAN, the venerable health officer of Shreveport, La., was presented with a substantial recognition of his valuable services as health officer, by the business men in the shape of a purse, containing over four hundred dollars.

DR. GEO. HENRY FOX, professor of skin diseases in the College of Physicians and Surgeons, of New York, delivered an interesting lecture at the Polyclinic on April 15. The lecture was under the auspices of the Polyclinic, by whom the doctor was invited. Invitations were issued to the members of the medical profession, and the appreciation of the occasion was evidenced by the attendance of about a hundred representative practitioners here, in addition to the Polyclinic class. The lecture was devoted to the practical illustration, with stereopticon views, of cutaneous syphilis, from cases observed and photographed by Dr. Fox himself.

DR. JOHN CLAY MCKOWAN, for several years resident in Capri, Italy, has been sojourning in New Orleans for his health. Born in Louisiana, Dr. McKowan has spent many years abroad, having had the pleasures and privileges of European study. Although known as a contributor to *Sajou's Annual* for some years past, Dr. McKowan is perhaps better known as the real capturer of Neal Dow.

MATRIMONIAL.—Dr. John D'Aquin was wedded to Miss Marcelle Dessommes on April 14, 1898, at the St. Louis Cathedral, this city.

Dr. Henry Bayon was married to Miss Jeanne Maspéro on April 28, 1898, also at the St. Louis Cathedral. Sincere congratulations to both happy couples.

DRS. LYNCH AND ROUSSEL, of New Orleans, have announced their purpose of soliciting examinations of pathologic specimens from the profession. This will prove satisfactory to those too busy or too occupied to do such work for themselves.

DR. JOHN M. WATKINS, one of the best known physicians in New Orleans, died at his residence in this city on April 24. Dr. Watkins was well known in the Third District, where he was highly esteemed by all who knew him. He was born in Mississippi and was 48 years of age at the time of his death. He leaves a wife and two sons, as well as two brothers, one Dr. W. H. Watkins, of New Orleans. His family have a host of friends in their bereavement.

DR. LEROY K. BRANCH died April 3, 1898, at Lecompte, La., having reached the ripe age of over 81 years. He was a graduate of the Medical Institute of Louisville, now the University of Louisville, and began practising in 1840, in Avoyelles parish, Louisiana, where he successfully practised until 1890. His infirmities compelled his retirement from active practice at this time, but he was in feeble health only for some months past. He leaves a widow and six children, two of whom are confrères, Drs. J. S. Branch, of St. Landry and W. G. Branch, of Bunkie.

MR. B. TUMA, known for his conscientiousness and skill as a pharmacist, died at his home in New Orleans, April 19, at the age of 48. Mr. Tuma was both respected and liked by all of the medical profession with whom he came in contact. His obligation to the strict dispensing of prescriptions as directed was a quality which was noteworthy in him. His death will be a regret to all who knew him.

AN OSTEOPATH ARRESTED.—Dr. H. W. Emery, graduated from the Kirksville school of osteopathy, was arrested on April 9 by the State Board of Mississippi, on the charge of practising medicine without a license. The court required a bond of \$200, which was at once signed by local citizens.

THE REPORT OF THE BOARD OF ADMINISTRATORS OF CHARITY HOSPITAL for 1897 is out.

MESSRS. LEA BROTHERS & CO. ANNOUNCE for early publication the following books: *A Manual of Otology*, by Gorham Bacon, M. D. *The Treatment of Surgical Patients Before and After Operation*, by Samuel M. Brickner, M. D. *A Text-Book of Dental Pathology, Therapeutics and Pharmacology*, by Henry H. Burchard, M. D., D. D. S. *The Principles of Treatment*, by J. Mitchell Bruce, M. D. *Diseases of the Nose, Throat, Naso-Pharynx and Trachea*, by Cornelius G. Coakley, M. D. *Diseases of Women*, by Francis H. Davenport, M. D. *A Treatise on Gynecology*, by E. C. Dudley, M. D. *A Text-Book of Anatomy*, by American authors, edited by Frederic Henry Gerrish, M. D. *Manual of Skin Diseases*, by W. A. Hardaway, M. D. *The Principles and Practice of Obstetrics*, by American authors, edited by Charles Jewett, M. D.

Abstracts, Extracts and Miscellany

Department of General Surgery.

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

DOYEN'S STATISTICS OF OPERATIONS ON THE STOMACH.—Dr. Doyen reports 146 operations with thirty-two failures for the relief of stomach troubles. Twenty of the failures are imputed to cancerous affections, for which he operated sixty-six times; eighty operations were for non-malignant diseases.

The last fifty-five, performed after his first general statistics of 1895, have given fifty good results with five deaths, the latter operated on *in extremis*. One can conclude that intervention in non-cancerous gastric troubles is not very serious, providing the operation is quickly and well done in time. Gratifying results can be looked for especially in alarming cases of dyspepsia or in subpleural pyloric ulcer. Radical cure is the rule. The patients eat as well as any one and never again do they "feel" their stomach.

Still better, gastro-enterostomy cures patients suspected of having intestinal dyspepsia; it checked hematemesis and re-established the biliary function in patients whose prolonged inanition had reflexly caused complete acholia and who had been treated previously for hepatic disturbance.

Cachexia and incipient phthisis, similarly acquired, are relieved and cured by these means.—*Progrès Médical*.

STRANGULATED CONGENITAL FEMORAL HERNIA OF THE OVARY, FALLOPIAN TUBE AND APPENDIX IN A CHILD 21 MONTHS OLD.—Dr. Pillon says that the hernia, which was on the right side and from information gathered very likely congenital, suddenly became strangulated whilst the child was at play.

Mr. Pillon operated the same day at the Nancy Hospital. Tedious peeling of the sac. The pedicle easily isolated, extending into the femoral ring. Constriction was relieved before

opening the sac, according to Heydenreich. The sac was then incised and found to contain a small amount of yellowish transparent liquid, the right ovary, the fimbriated extremity of the Fallopian tube with most of the latter, and the broad ligament dragged downward by the uterine appendages.

At the upper portion of the sacculated pedicle was lodged the ileo-cecal appendix twisted on itself, but only slightly congested. After severing the sac from its pedicle, all the viscera were easily reduced. Irrigation with sublimate solution; ligation of the sac; skin sutured; drainage by means of strand of silk-worm gut. Dry iodoform dressing; stitches removed on the eighth day; union by first intention. Discharged cured on the fifteenth day.

Pillon reasoned that it was more logical to replace the herniated viscera than to extirpate them. He furthermore states that he has been unable to find a similar case on record.—*Lyon Médical*.

DRAINAGE OF THE FOURTH VENTRICLE FOR ACQUIRED HYDRO-CEPHALUS.—Drs. Bruce & Styles relate the case of a thirteen-year-old girl presenting all the symptoms of congenital syphilis and the following signs of meningitis of the base: irregular fever, myasthenia, paresis of one of the recti externi, weaker lower extremities, increasing blindness, anemia and very pronounced emaciation. Notwithstanding all medical aid her condition became worse and on account of the cyanosis and contracted limbs it was decided to open and drain the fourth ventricle. Mr. Styles trephined in the middle of a line passing along the lower border of the occipital bone, including the foramen magnum, and enlarged the opening by means of a dilator. He then incised the occipital sinus between two ligatures, cutting through the dura mater. On separating the two cerebellar tonsils there came a large quantity of liquid. A marked improvement immediately followed the operation; the temperature becoming normal, the mind lucid and appetite being regained. One week after, fever reappeared; death in hyperpyrexia nineteen days after the operation. During all this time cerebrospinal fluid flowed in great quantity.

Bruce & Styles lay stress on the feasibility of reaching the fourth ventricle, and on the cause which, occluding Magendie's foramen, was removed by the operation.

They think that death was due to the patient's previous bad condition coupled with complications produced by an existing albuminuria and pyuria.—*Lyon Médical*.

Department of Obstetrics and Gynecology.

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

A CASE OF SCIRRHIOUS CARCINOMA is reported as occurring in the cicatrix left at the ventro-fixation of the uterus. The operation was performed three and a half years before the appearance of the cancer. The growth was altogether disconnected with the uterus, which had undergone senile atrophy. The growth increased rapidly in size, infected several neighboring glands and some patches of the liver; and finally killed the patient in a few months.—MCCONE, *American Journal of Obstetrics and Gynecology*.

THE SO-CALLED "DECIDUAL CELLS" ARE NOT PATHOGNOMONIC of gestation, says Wiener. He has found that they occur in some forms of endometritis, in membranous dysmenorrhea, and in other conditions. Therefore the diagnosis of gestation based upon the presence of decidual cells can not be considered positive. Spindle-shaped cells are found in other conditions than sarcoma—*e. g.*, certain forms of endometritis; therefore sarcoma of the uterus does not exist in every instance where this cell is present. This is most frequently associated with chronic glandular endometritis—is where the glandular epithelium and interstitial structures are hypertrophied and hemorrhages into the connective tissue occur. The mucous membrane becomes soft and considerably thickened. In the glandular atrophy following the interstitial endometritis, the interstitial cells force their way between the epithelial cells, leaving a connective tissue structure abounding in spindle-shaped cells with an occasional area of leukocytes.—*American Gynecological and Obstetrical Journal*.

A CASE OF OOPHORECTOMY is reported during labor by Reynolds. The patient had a tumor lying low in the Douglas' cul de sac, about the size of a seven months child's head, the uterine os was dilated to the size of a five-cent piece and reaching with difficulty above the tumor. Taxis was tried for ten minutes with the woman in the knee-chest position, under ether anesthesia, and repeated some hours later without benefit. Laparotomy was then performed and large quantities of pus discovered. The tumor was firmly attached in Douglas' fossa and in a necrotic state. After the tumor was removed an unsuccessful attempt was made to deliver the child with forceps. Craniotomy was finally done. The abdomen was then closed and the patient made a gradual but tedious recovery.

Reynolds advises that in these cases taxis should first be tried under anesthesia, and repeated in a few hours if the first attempt is unsuccessful. As a last resort the abdomen should be opened, the uterus incised, the child removed, and also the tumor, if removable. If the patient is infected it would be preferable to remove the tumor and deliver the child through the normal route without incising the uterus.—*Boston Medical and Surgical Journal*.

THE VARIETY OF RUPTURED TUBAL PREGNANCY MOST FAVORABLE for operation by the vaginal route is that in which hemorrhage has not been so severe, and in which the omentum together with the other structures has formed a barrier to its progress upward into the peritoneal cavity. This method would not be indicated if the hemorrhage was from the ovarian artery, or large amounts of free blood were to be removed. It is impossible to ascertain whether the flood is confined to the pelvis only, and preparation should be made to complete the operation by the abdominal route. Bovée reports six cases treated by the vaginal method, all of which recovered. Better drainage is furnished by this route, there is less liability to sepsis and shock is considerably diminished. The period of convalescence is considerably shortened, the complications of abdominal sections are absent, and fewer uteri are removed.—*Jour. American Med. Association*.

IN SEVENTY-ONE CASES OF INTRA-MURAL AND INTERSTITIAL UTERINE fibroids treated by electricity a personal examination in five instances showed that the tumors had

entirely disappeared. Seven patients reported that the tumors, together with all the symptoms, had disappeared; twenty-nine were relieved of all symptoms and the tumors greatly reduced in size. In seven no change was obtained. With the exception of two cases, all the women were comfortable from three to nine years after the treatment. This treatment is practicable only in the intra-mural and the interstitial forms of small size, though the multiple forms of large size are benefited. The large, smooth tumors are seldom benefited.—MASSEY, *Journal American Medical Association*.

Department of General Medicine.

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

EYE BURNS FROM LIME.—These burns are often met with among bricklayers and at places where cement containing more or less lime is handled. Dr. Gossart, in his thesis on this subject (*Thèse de Lille*), points out that, as regards prognosis, there is quite a difference between the burns treated immediately and those treated at a later period only.

That is the reason why many of these burns remain mild and pass unnoticed, they being promptly and properly dealt with.

Above all, it is absolutely requisite to carefully explore the culs-de-sac of the conjunctiva and to remove with a curette the fragments of mortar or of lime, enclosed under the upper lid. Then cleansing is made complete by profusely irrigating the eye with a solution of boric acid, gr. v to ℥i. Next, to neutralize the lime, pour in the eye by drops a solution of sugar and water, which combines with the lime, forming a neutral lime saccharate. Powdered sugar alone, if put in the eye, will practically answer the same purpose. In fact, it is what many bricklayers do, and all those handling lime should have powdered sugar within their reach.

After this is done antiseptic treatment is at once begun with a view to preventing complications from inflammation and cicatrization.—*Journal de Médecine et de Chirurgie Pratiques à l'Usage des Médecins Practiciens*.

ANTIPYRIN AND LACTATION.—A writer in the *Bulletin Médical* sums up the conclusions reached by M. G. Fieux after various researches as follows :

1. Antipyrin certainly passes in a natural state into the milk.
2. Given in large doses, in two capsules each containing fifteen grains, at intervals of two hours, it may be detected in the milk in from five to eight hours after its ingestion, and from nineteen to twenty-three hours afterward it can not be discovered; so elimination lasts eighteen hours at the maximum.
3. The antipyrin during this time passes into the milk only in an excessively weak proportion, very much less than fifty parts in a thousand. It is only in exceptional conditions—for instance, when sixty grains are administered in sixteen hours—that it perceptibly reaches this proportion.
4. It does not influence in any way the quality of the milk and particularly the lactose, the casein, or the fat.
5. It seems to have no action at all on the secretion, which always remains very abundant, provided the woman continues to nurse.
6. From the absence of general symptoms and from examinations of the weight the infinitesimal quantity absorbed by the nursling does not seem to have any unfavorable action.—*N. Y. Med. Journal*.

IMPORTANCE OF SUGAR AS A FOOD.—M. A. Chauveau, before the *Académie des Sciences* (meetings of March 14 and 21, 1898), said that the combustion of the glycogen stored in the muscles generates the power necessary for their work, and as the combustion is going on incessantly, the material is incessantly supplied by the formation of glycogen in the organism, especially in the liver.

The nutritive value of a substance does not depend on its heat-producing power. The amount of sugar to be added to a fixed ration of meat for generating the energy used by the body at work is less than that of fat, and 0.766 of sugar will generate as much if not more energy than .1 of fat. This notable superiority of sugar over fat is still greater, as shown in certain physiological conditions. For instance, in the condition of exhaustion, whereas fat will not prove more valuable than usual, sugar, on the contrary, will markedly contribute to the repair and the formation of cells, by aiding assimilation of albuminoids and retarding mal-assimilation.

It is therefore erroneous to reckon the value of food according to its aptitude to generate glycogen, as it is to determine it from its readiness to generate heat.

The value of food is based on the two following criteria: (1) A test as to its aptitude to become a direct and immediate source of energy for the work of the body. (2) A test as to its indirect influence upon the special physiologic changes necessary for the formation and maintenance of the cells.

In both respects sugar is far superior to fat, and particularly so as regards the repair and formation of tissue. This indicates very clearly the importance of sugar in our alimentation, and the author shows how irrational it is to tax at discretion the use and consumption of so essential an article.—*Gaz. Hebdom.*

Department of Therapeutics.

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

“PROBABLY THE MOST POTENT HYPNOTIC is paraldehydè; next comes chloralamid; then pellotin, and lastly trional. Sleep follows most quickly after pellotin, next after paraldehyde, then after chloralamid, and lastly after trional. With moderate doses the longest sleep is obtained from trional; next comes paraldehyde; then pellotin, and lastly chloralamid. The danger of a habit from pellotin is extremely slight; it is a little greater from chloralamid, and there is very great danger from paraldehyde, as shown by the published reports. Chloralamid seems to be the safest of them all; next comes pellotin; then paraldehyde, and the most dangerous from continuous administration is trional.”—WILCOX, *The Therapist*.

A USEFUL PRESCRIPTION for an attack of diarrhea, which is tending to become chronic and which appears to be maintained by a certain amount of loss of tone in the intestinal mucous membrane, is the following:

℞ Tinct. catechu comp.....	ʒ ii
Sodii bicarbonat.....	ʒ grs. lxxx
Spir. ammonii aromat.....	ʒ iv
Tinct. nucis vomicæ.....	ʒ lxxx
Infusi columbæ, q. s. ad.....	ʒ viii

M. Fiat. mist.

Sig.: Two tablespoonfuls three times a day, an hour before taking food.

—YEO, *Manual of Medical Treatment*.

SCARLATINAL ANGINA.—The following spray is recommended (*Revue Médicale*) in cases of scarlatinal angina:

℞ Oxygenated water.....	ʒ i.
Sodium bicarbonate.....	ʒ grs. xviii.
Boiled distilled water.....	ʒ ii.

M. Sig.: To be used every two hours.

—*The Practitioner*.

IN CARDIAC DROPSY when digitalis alone fails to give relief, the following combination will be found useful:

℞ Caffein citrate.....	grs. xii.
Sodium salicylate.....	ʒ i.
Infusion digitalis, q. s. ad.....	ʒ vi.

M. fiat. mist.

Sig.: Tablespoonful every three or four hours.

THE TREATMENT OF GONORRHEA BY INJECTIONS OF PROTARGOL. Protargol contains 8.3 per cent. of silver. It is a chemical combination of silver with proteid, and forms a fine, yellowish powder. On prolonged shaking with water it is readily dissolved. In the beginning $\frac{1}{4}$ per cent. solution should be employed. This should be increased in strength until 1 per cent. concentration is reached. In chronic cases the penetrating effect of protargol is well demonstrated, but it will be usually necessary before cure is accomplished to produce an acute inflammation, preferably by means of argentamin injections from 1-4000 to 1-2000. As a result of his experience in hospital and private practice, Neisser states that he has never had from any other drug such rapid, satisfactory and sure cures.

THE PREVENTION OF IODOFORM INTOXICATION.—Sasse is quoted by *Journal des Practiciens* as recommending the following means of demonstrating in time a threatened iodoform intoxication, a condition which is not rare in surgical and gynecologic practice. A test is made of the urine to note the quantity of iodine which is eliminated by it. A small pinch of calomel is placed

upon a saucer, and then a few drops of the urine to be examined is dropped upon it; a mixture of the urine and calomel is then made with a glass rod. If the urine contains a notable amount of iodine there is produced a well marked yellow discoloration, which should indicate that the iodoform is being absorbed in sufficient quantity to produce danger.—*The Therapeutic Gazette.*

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 *Clinical Text-Book of Surgical Diagnosis and Treatment for Practitioners and Students of Surgery and Medicine.* By J. W. MACDONALD, M. D. Philadelphia: W. B. Saunders, 1898.

While not underestimating the importance of surgical pathology, the author considers the answers to two questions: "What is the disease or injury?" and "What is the proper treatment?" the practical part of the surgeon's work, and so devotes himself only to the clinical and therapeutic discussions of surgical affections. Special attention is given to diagnosis, and an effort is made to make the examination of each disease or injury systematic and comprehensive. The subject of symptomatology and diagnosis is well done, and many useful differential diagnosis tables are given. The space allotted to each disease is rather too brief to be comprehensive, and unequal attention is bestowed on the various groups of diseases.

The eye, ear and skin are, we think, very properly omitted, as they are generally left to specialists; but why, then, should such detailed attention be given to the nose, accessory sinuses, larynx and trachea, when these form almost as distinct a specialty as those omitted from the work? Ninety-one pages in a book of 783 pages are devoted to the respiratory apparatus

("system," he calls it), while two and a half pages are deemed quite sufficient for "The Chest," not including "The Bronchial Tubes," which are discussed in a separate section, with not a word about the surgery of the lung. Stephen Paget's admirable and extensive work on the surgery of the chest, and the remarkable strides made in the last two years in this important field of surgery, can but emphasize this omission. Too much attention is given to the discussion of gynecology, now so well presented in the special works on that subject.

The book is especially to be commended to students and practitioners on account of the care bestowed upon the examination of patients, inculcating, as it does, thoroughness in the attempt to find out *all* about the patient, and not simply the one palpable disease that may first come under observation.

Some rather queer observations are to be found in the book, as the statement on page 263, that "the serous membrane must be modified or destroyed, for the destruction of the slippery surface will remove the tendency of the intestines to slide over it," speaking of the treatment of the hernial sac in operations for the radical cure. The general discussion of appendicitis is good, but we think the author treats rather lightly the management of the stump of the appendix, in simply saying that "when the appendix is found it should be ligated near the cecum and removed."

However, we do not desire to pursue the search for flaws, as the book has much that is admirable in it and will surely prove useful.

PARHAM.

Origin of Disease. By ARTHUR V. MEIGS, M. D., Physician to the Pennsylvania Hospital. Illustrated. J. B. Lippincott Co., Philadelphia and London, 1897.

Not one page of this valuable book is superfluous. The preparation represents unusual care in the detail. The arguments, the logic and the philosophy are strongly suggestive of the better work of Fothergill, while the judgment exercised in handling the subject matter is most excellent and noteworthy. The illustrations are remarkably fine and clear, and more—they are profuse. Both the author and collaborators, as well as the publishers, deserve the appreciation and the thanks of the medical profession for the existence of this valuable book.

DYER.

Applied Physiology, Including the Effects of Alcohol and Narcotics.

By FRANK OVERTON, A. M., M. D., Late House Surgeon to the City Hospital, New York. American Book Company, New York, Cincinnati, Chicago.

As an elementary text-book on physiology this book is a distinct success. It is handy and well printed in strong, large type. The scheme of handling the subject is excellent, a system of review and quiz being arranged at the conclusion of each chapter. The subjects are logically arranged and enough of material is used to make each department clear. One good feature is the suggestion of experiments in line with the text, detailed in connection with the quiz. There is a lack of finish in several instances, which another edition will undoubtedly correct.

DYER.

An Epitome of the History of Medicine. By ROSWELL PARK, A. M., M. D., Professor of Surgery, Medical Department of the University of Buffalo. One volume. 348 pages. Illustrated. The F. A. Davis Co., Philadelphia, New York, Chicago.

With an apology to the several sources of information from which the earlier parts of the book have been largely derived, Dr. Park has carefully compiled and elaborated the material used in this interesting book. It is unfortunate that the necessity for condensation should have compelled the limitation of space devoted to American medicine and surgery and to the representatives of these divisions of our profession. Our own local men of note, unquestionable note we might say, have been entirely overlooked—but as the work is not a history but an “epitome” we can not be too critical nor too captious. The work is written in excellent style and is well bound and printed.

DYER.

A Manual of Medical Jurisprudence. By ALFRED S. TAYLOR, M. D., Lecturer on Medical Jurisprudence and Chemistry in Guy's Hospital, London. New American Edition from the Twelfth English Edition. Thoroughly revised by CLARK BELL, ESQ., of the New York Bar. Lea, Bros. & Co., Philadelphia and New York, 1897.

No worthier editor could have been selected for the revision of this standard work on legal medicine than Mr. Clark Bell.

He has made the book in hand more valuable by his critical revision and by his judicious additions to the original English text. Himself a strong champion of the urgent need for the better education of medical men in expert testimony, Mr. Bell throughout the book has impressed this opinion upon the text. Several pages are introduced bearing upon medico-legal surgery, with special reference to railway surgery, the latter lately being brought into the scope of medical jurisprudence largely through Mr. Bell's efforts in his association with the New York Medico-Legal Society.

DYER.

PUBLICATIONS RECEIVED.

Mammalian Anatomy, Part I, The Skeleton of the Cat, by Horace Jayne, M. D. J. B. Lippincott Company, Philadelphia, 1898.

Veterinary Obstetrics, by W. H. Dalrymple, M. R. C. V. S. Wm. R. Jenkins, New York, 1898.

Laboratory Text-Book of Pathology, by Horace J. Whitacre, M. D. P. Blakiston, Son & Co., Philadelphia, 1897.

The International Medical Annual. E. B. Treat & Co., New York, 1898.

Compendium of Insanity, by John B. Chapin, M. D. W. B. Saunders, Philadelphia, 1898.

Atlas of Methods of Clinical Investigation, edited by Aug. A. Eshner, M. D. W. B. Saunders, Philadelphia, 1898.

Atlas and Text-Book of Skin Diseases, by Wm. S. Gottheil, M. D. E. B. Treat & Co., New York, 1897. (*Portfolios I, II, III.*)

Report of the Hygienic Laboratory of the United States Marine Hospital Service, 1896.

Report of the Health Department of the City and County of San Francisco, 1897.

Annual Report of the Board of Managers of Craig Colony, 1897.

Diseases of the Stomach, by John C. Hemmeter, M. D. P. Blakiston, Son & Co., Philadelphia, 1897.

American Text-Book of Genito-Urinary Diseases, Syphilis and Diseases of the Skin, edited by L. Bolton Bangs, M. D., and W. A. Hardaway, M. D. W. B. Saunders, Philadelphia, 1898.

Diseases of the Stomach, by Wm. W. Van Valzah, M. D., and J. Douglas Nisbet, M. D. W. B. Saunders, Philadelphia, 1898.

Yellow Fever in the West Indies, by J. Anderson, M. D. H. K. Lewis, London, 1898.

REPRINTS.

Adenoidites chez les Adultes, by Dr. E. J. Moure.

Typhoid Fever, by John E. Woodbridge, M. D.

Note on Diastatic Preparations, by W. G. Tucker, M. D.

Successful Treatment of Tuberculosis by Hypodermic Use of a Solution of Iodine, by Charles W. Ingraham, M. D.

Notes on the Non-Surgical Treatment of Boils, Carbuncles and Felons, by L. Duncan Bulkley, M. D.

New Incision for Arthrectomy, Resection and for Reduction of Shoulder Dislocation.—Treatment of Chronic Empyema of Antrum.—New Method of Nerve Resection for Amputation-Neuroma.—Lumbar Nephropexy Without Suturing, by N. Senn, M. D.

Difficulties in Determining the Causes of Coma, by J. T. Eskridge, M. D.

Features of Erythro-Melalgia and of Raynaud's Disease, by H. D. Rolleston, M. D.

Therapeutic Properties of the Thyroid Gland, by J. T. Eskridge, M. D.

Tumor of the Spine—Compression-Myelitis—Operation—Death on Ninth Day, by J. T. Eskridge, M. D., and E. J. A. Rogers, M. D.

How to Avoid Catching Consumption and Giving It to Others, distributed gratuitously by the Washington State Medical Society.

Inefficiencies of Methods for the Detection of Subnormal Color—Perception—A Perfected Series of Test Type—History of Operative Procedures for Cicatricial Ectropium from Antral Disease, by Chas. A. Oliver, M. D.

The Question of Pelvic Support, by Jos. Eastman, M. D.

Amblyopia from Suppression—Congenital Imperfection or Disease, by L. Connor, M. D.

Anterior Displacement of the Hip, by DeForest Willard, M. D.

Case of Phlegmonous Gastritis Following Ulcus Carcinomatosum of the Pylorus, by John C. Hemmeter, M. D. and Delano Ames, M. D.

The Other Kidney in Contemplated Nephrectomy, by Geo. M. Edebohls.

The Truth About Cigarettes, by Clark Bell, M. D. and W. H. Garrison, Esq.

Solution of the Proprietary-Medicine Question, by C. C. Fite, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR MARCH, 1898.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	4	4	8
“ “ Intermittent			
“ “ Remittent		1	1
“ “ Congestive			
“ “ Typho	2		2
“ Yellow			
“ Typhoid or Enteric.....	8	3	11
“ Puerperal			
Influenza.....	9	1	10
Measles			
Diphtheria	2		2
Whooping Cough			
Apoplexy	16	5	21
Congestion of Brain.....	5	3	8
Meningitis	8	1	9
Pneumonia.....	32	21	53
Bronchitis	12	13	25
Cancer.....	15	4	19
Consumption.....	50	31	81
Bright's Disease (Nephritis)	21	15	36
Uremia	1	2	3
Diarrhea (Enteritis).....	11	5	16
Gastro-Enteritis	2		2
Dysentery.....	1	2	3
Hepatitis	4	1	5
Hepatic Cirrhosis	2		2
Peritonitis.....	2	1	3
Debility, General	1		1
“ Senile	9	8	17
“ Infantile	3	3	6
Heart, Diseases of	23	19	42
Tetanus, Idiopathic			
“ Traumatic	2	2	4
Trismus Nascentium.....	3	6	9
Injuries	10	13	23
Suicide	7	1	8
All Other Causes	78	46	124
TOTAL	343	211	554

Still-born Children—White, 20; colored, 22; total, 42.

Population of City (estimated)—White, 195,000; colored, 80,000; total, 275,000.

Death Rate per 1000 per annum for month—White, 21.11; colored, 30.40; total, 24.17.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.11
Mean temperature	65.00
Total precipitation.....	0.80 inches
Prevailing direction of wind, southeast.	

FOR REFERENCE

NOT TO BE TAKEN FROM THE ROOM



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