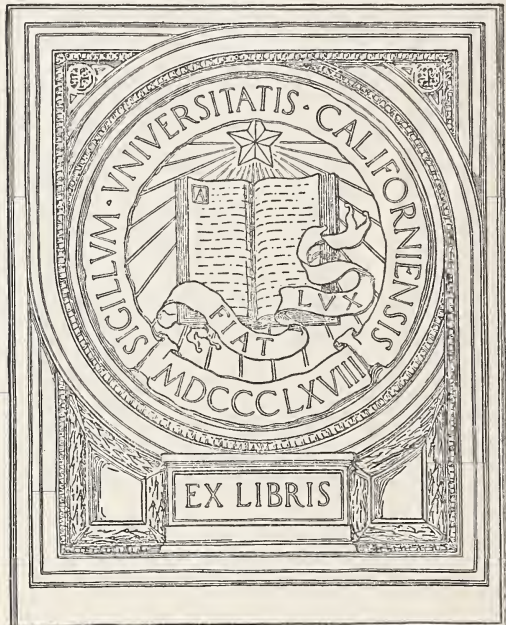
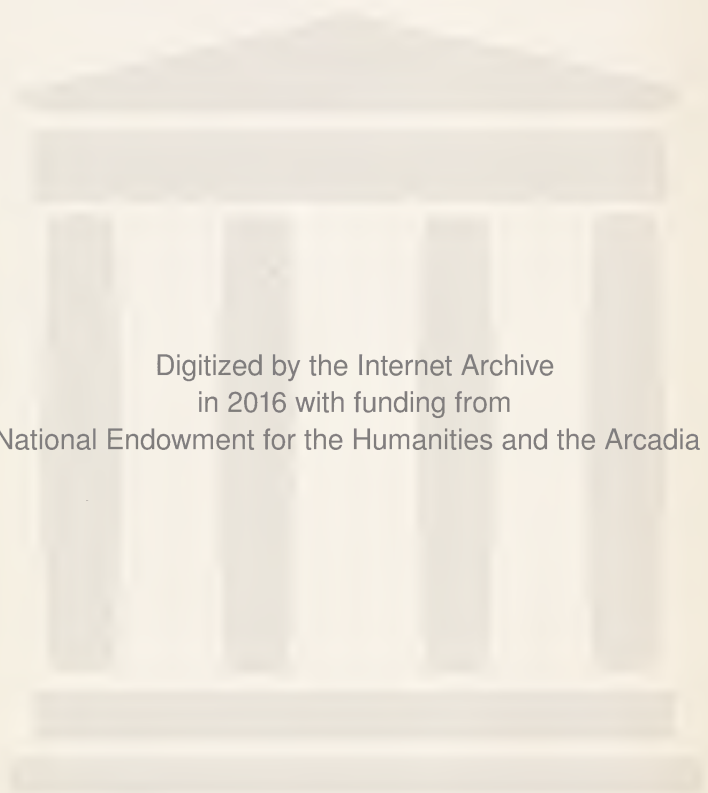


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THE CAUSE OF FEVER AND ITS TREATMENT IN CHRONIC PULMONARY TUBERCULOSIS.

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In the purely tubercular processes of the lung, fever may be present or absent, according to the stage reached. With and during the eruption of tubercle in the lung, the temperature is increased, the degree depending upon the extent of lung involved. In the circumscribed form it is quite moderate, rarely exceeding two degrees above the normal, and in our present state of knowledge we attribute the elevation to the absorption of specific toxins which are produced by the tubercle bacilli, and to the reactive, inflammatory changes in the periphery of the forming tubercle.

* These reactive inflammatory changes are of the so-called productive variety, leading to the formation of new tissue, which enclose the tubercle, thereby eventually limiting the further absorption of specific toxins; at the same time an increasing toleration or perhaps a certain degree of immunity is established under which the organism for the time being does not longer react with fever.

The latter cause of the subsidence of fever in the earlier phases of tubercular eruption seems to be confirmed by the tol-

eration which can be established from the artificial introduction of crude tuberculin in gradually increasing doses, both in tubercular and non-tubercular subjects, and while even comparatively small doses may cause fever in the beginning, doses a hundred times greater can finally be reached without causing fever.

The fever which accompanies the primary eruption of tubercle in the lung is rarely referred to its true cause, for the reason that symptoms on the part of the lung are frequently absent, or they are so slight that they attract little or no attention, and even if a slight hacking cough should be present, the absence of distinctive physical symptoms tends to allay any suspicion or fear of tubercular disease. In most cases the patient becomes accustomed to the slight fever, which may only last a few hours each day, and may occur at a time when the patient does not call at his physician's office; the more or less marked malaise is then attributed to all sorts of causes, and since with the completion of the tubercular eruptions the fever and other symptoms subside, the apparent recovery of the patient confirms whatever theory may have been adopted, and justifies the treatment that may have been employed. Many persons are not sufficiently indisposed to even consult a physician. In either case the tubercular eruption usually forms and assumes a latent stage, without a diagnosis at this period.

The diagnosis of the actual period of eruption of tubercle is attended with uncertainties; if made at all, it will depend largely upon indirect evidence. In cases which seek medical advice for the vague symptoms present, we must take into consideration the possible predisposition of the patient, either hereditary or acquired, the fact that there is no good and sufficient reason to account for the symptoms complained of, the presence of slight fever during some part of the day or night, and the suspicion of tubercular changes in the lung may receive further confirmation in the recognition of extremely delicate, crepitant râles, especially after coughing, and by deep respiration, by those who are well skilled and practised in physical diagnosis.

Even then one may not feel like giving a positive opinion, but the subsequent development of more pronounced evidence, in the occurrence of slightly diminished percussion resonance in one apex, with prolonged expiration, and later a somewhat

harsh, rough or interrupted character of the inspiration and of prolonged expiration, after the patient considers himself well, should remove previous doubt.

Many physicians seem still unwilling to make the diagnosis with this evidence, and to such I would recommend the tuberculin test, which in this stage, if properly applied, is without the slightest danger to the patient, while it confirms the diagnosis with unerring certainty if the characteristic reaction occurs.

Latent deposits in one apex are more easily recognized by physical examination after several or more months have elapsed since their formation; I have frequently been able to find them in brothers and sisters of patients who came with them as companions, entirely unconscious of their own affliction.

I have also been able to confirm the diagnosis in such cases by subsequent development of destructive changes in the latent deposits; sometimes years after I made the early diagnosis, which the individuals were unwilling to accept in the first place, because of their apparent good health.

More frequent has been my opportunity to note and watch the eruption and subsequent changes of tubercle in the opposite lung, when the patient came under my care soon after destructive changes in the primary deposit appeared.

When this latent stage has been reached the auscultatory and percussion changes observed are due to the encroachment upon the alveolar air spaces and upon the calibre of the bronchioles by the tubercle and the newly-formed connective tissue.

Other distribution of tubercle from sources outside of the lung may occur, undergoing like changes and becoming inactive and latent in like manner; but without some existing cause these latent deposits continue indefinitely and become the more permanent and eventually the less a menace to the patient, as fibroid changes are induced in the tubercle itself.

In the great majority of cases an exciting cause becomes operative in the nature of an inflammation extending to the bronchioles and alveoli, already predisposed by the diminished physiologic activity of the lung portions in which the latent deposit is situated.

Thus, inflammation of the bronchial mucous membrane occurring with an ordinary attack of bronchitis, due to cold and exposure, or an attack of grippe, will more readily extend to

and involve these deeper lung structures than would be the case in the normal lung, and the area of a latent deposit of tubercle is thus more liable to lobular pneumonia and to the attending interstitial inflammation and catarrhal exudates.

Like results follow in connection with measles, whooping cough and pleurisies from exposure, and also in the course of other acute or chronic diseases, as for instance in typhoid fever, syphilis and diabetes mellitus, which, by diminishing the individual's general resisting power, favor the colonization, multiplication and extension of pathogenic germs upon the pulmonary mucous membranes, and particularly within such lung portions as are already the seat of latent disease.

In this manner the destructive changes in latent circumscribed tubercular deposits are initiated. An examination of the chest at such a time reveals evidence of a latent deposit, in addition to the auscultatory or percussion phenomena, which are due to the acute affection. As the latter subsides, the physical symptoms in the tubercular deposit continue; if râles have been present throughout the chest, they do not disappear in this locality. The rough or harsh inspiration is now accompanied with fine râles, indicative of involvement of the capillary bronchi. Slighter temperature elevations may persist, or if the temperature has become normal, fever returns.

A return or increase of the cough and of all other symptoms follows their intermission, or remission, the temperature reaches higher maxima, and chills or chilly sensations may occur with its onset and night sweats may coincide with its rapid fall.

This fever is due to the absorption of softened caseous material and continues until the removal of the cause, either by absorption alone or by eventual discharge into a bronchus. Small caseous foci may be absorbed without outward discharge, but until outward discharge occurs, the sputum does not contain tubercle bacilli or elastic tissue.

If only one tubercular nodule has broken down, or if all softened foci have already coalesced before being discharged into a bronchus, then the fever subsides quickly, the loose cough as well as the expectoration soon diminish, and a rapid improvement takes place in all respects.

It is otherwise when a number of foci are softening successively. In such cases the active period may be prolonged for

several months or longer, and while, as a rule, a gradual amelioration also takes place, it is frequently interrupted by local inflammatory conditions and by retention of discharges, but in either case the apparent recovery or improvement is not lasting.

Though the temperature may again have been normal for several weeks or a month, slight rises or a moderate increase are again noted, the appetite suffers again, the patient has apparently relapsed, although in the first involved lung portion nothing is found to account for it. On the contrary, an improvement is frequently noted in the entire disappearance of catarrhal râles. If a cavity has been formed and recognized it may now be dry, the expectoration has decreased or has stopped entirely, and there seems no way of accounting for the return of fever and other symptoms.

Neither are these renewed symptoms to be accounted for by the local condition of that lung portion in which the active symptoms have disappeared. On the contrary, they depend upon new eruption of tubercle, either by extension in the same lung or in the opposite apex, most frequently in the latter, but often in both localities, in which the previously described delicate phenomena can now be recognized upon painstaking stethoscopic examination.

If the destructive and suppurative processes in the primary deposit are still active, their symptoms continue and obscure those due to the eruption of new tubercle.

The part of other pathogenic bacteria, and of their toxins in the fever which accompanies these destructive changes is still undetermined beyond the fact that by the inflammation which they produce the caseation and liquefaction of tubercle are favored.

When this process is once under way the accompanying febrile symptoms need no other explanation for their cause than the absorption into the blood of the organic substances from the liquefying caseous material; microscopic examination of caseous or liquefied tubercle made with every precaution and care frequently fails to demonstrate other pathogenic germs than tubercle bacilli.

During the period preceding the evacuation of tuberculous material into a bronchus, the sputum, if present, is due to symptomatic bronchitis, and often contains pathogenic cocci; in many

cases, however, the catarrhal symptoms of the existing inflammation disappear entirely, and several weeks, or longer periods, elapse before the symptoms of destructive changes attract attention.

In such cases the returning cough is dry; catarrhal sputum appears later, and many of my examinations made in this stage showed no pathogenic germs until with the discharge of liquefied tubercle the sputum contained tubercle bacilli only.

That the absorption into the blood of certain albuminoid substances can produce identical febrile phenomena is a well-known fact, which I have frequently been able to prove by the hypodermic injection of sterile solutions of nuclein and of sterile normal blood serum.

Like symptoms follow frequently the use of so-called anti-toxic serums for diphtheria, streptococcus infection, tetanus and tuberculosis, and the injection of sterile solutions of beef peptones and of beef extract. The occurrence of fever after such injections appears to depend upon the dose and upon the susceptibility of the patient, or upon the degree of toleration induced by beginning with very small doses.

The following case may serve to illustrate this and other points made in this paper:

Young man, aged 23, was apparently well until from severe exposure he contracted an acute bronchitis; temperature was elevated for three days, varying between 100 and 101.5 F., but it was normal after the fourth day. The cough, however, continued and expectoration appeared with the decline of the fever. An examination of the lungs having revealed relative dullness in the right upper lobe, with prolonged, bronchial expiration above and below the clavicle, the sputum was examined daily for several weeks, without finding tubercle bacilli. A few staphylococci only were present in the first and second specimens, but after causing the patient to thoroughly rinse his mouth before collecting the sputum in a sterile vial, nothing but non-pathogenic cocci and a few mouth bacilli were occasionally found thereafter.

After about three weeks the cough and expectoration stopped entirely, but on examination of the dull area catarrhal râles were now present, which were easily brought out on deep inspiration and on coughing.

A week later the râles had increased in number and were audible with ordinary respiration, they were now confined to a small spot below the inner end of the right clavicle; a hacking cough and fever had returned, subsequently small quantities of mucus were occasionally expectorated, which contained no pathogenic micro-organisms.

The temperature now reached 101 deg. F. and over nearly every day, chilly sensations and several times well-marked chills preceded the onset of fever, and the patient had three or four rather profuse night sweats.

This condition lasted nearly three weeks more, when the expectoration became bloody and next muco-purulent, but still no pathogenic germs were found.

Several days later, caseous particles and a few tubercle bacilli appeared in the sputum, and similar results were obtained in a number of specimens; the fever gradually subsided to normal by the end of the fourth week. The cough and sputum grew less almost daily, and in the dull spot where the râles had been observed, cavernous respiration was now unmistakable.

The last specimen of sputum obtainable still contained a few tubercle bacilli, but streptococci or staphylococci were never present. This case was under my care at the time when I was trying nuclein solutions, and the first injection of 1 c. c. given several weeks after the temperature had become normal caused chill, followed by a temperature of 102 deg. F. After waiting two days, during which the temperature was again normal, another cubic centimeter was injected with a like result; further trial with smaller doses of the remedy was thereafter declined by the patient.

Such and other experiences, too numerous to relate, have caused me to doubt the commonly accepted belief that the toxins from pathogenic bacteria, especially of streptococci and staphylococci, play the serious role often attributed to them in the fever of phthisis, and that because such germs are found in the sputum, or because so-called *hectic* fever is present, we may simply conclude it to be due to the absorption of toxins from mixed infection, and they incline me to the belief that the absorption of disintegrated tissue is really responsible for the fever.

In stating this belief, I am not contending that other patho-

genic germs than tubercle bacilli may not cause fever and other symptoms in the course of phthisis.

The effect of invasion of lung tissue by pathogenic germs, be they tubercle bacilli, streptococci, staphylococci, pneumococci, or Eberth's bacilli, becomes manifest in reactive inflammations which are attended with fever. In the case of invasion by tubercle bacilli the reactive inflammation is slow in its occurrence, and is attended by proliferation of connective tissue, the degree of fever, unless a general invasion has taken place, is moderate and with the subsistence of the local inflammatory changes the temperature becomes normal.

The invasion by streptococci, staphylococci, or pneumococci is quickly followed by round cell infiltration of the interstitial tissue and by catarrhal exudative process in the alveoli and bronchioles, in other words, by acute pneumonic processes under which the fever is continuous and quite different in its course from that which we observe in the chronic course of phthisis.

The result of invasion of the lung by other pathogenic germs is plainly shown in the pneumonias which follow profuse hemorrhage from suppurating cavities, and occasionally we note like inflammation to occur after profuse expectorations of purulent secretions, if attended with violent cough, in which accumulated secretions were probably aspirated into adjacent or distant lung portions.

In all my cases in which pneumonia resulted from such an accident, the inflammation occurred promptly in the course of from twenty-four to forty-eight hours and my records usually showed pathogenic cocci—oftener the streptococcus—to have been present in the sputum prior to the accident.

With my recent experience and views, I would only designate that fever as due to mixed infection which accompanies the acute inflammatory complications in the course of the disease, and would propose to recognize—

1. The specific fever which occurs uncomplicated only with the new formation of tubercle.
2. The absorption fever due to liquefied organic substances derived from disintegrated caseous material and pus, which may be associated or not with the specific or inflammatory fever.
3. The inflammatory fever produced by other pathogenic bacteria than the tubercle bacillus and which may occur as a complication with either of the previous forms.

As the disease advances to the last stages the first and second forms are frequently present in combination.

The specific form of fever when the eruption of tubercle is circumscribed and confined to only one under lobe is usually quite moderate, rarely exceeding 100 deg. F. It is increased by exercise and moderated by rest. It usually occurs in the afternoon or evening; its rise and decline are gradual without chill or sweats.

Symptomatic treatment for this fever is rarely necessary, but the primary indication—*i. e.*, the removal of the cause, can be complied with by the use of specific products of the tubercle bacillus, such as watery extract of tubercle bacilli, purified tuberculin, or antiphthisin, and to those who are able to recognize the slighter physical evidences in the chest indicating the presence of forming or of recently formed tubercle, I can give unqualified assurance that these physical phenomena will be observed to disappear, together with the fever and other symptoms under the proper use of these remedies.

In the disseminated and miliary form of pulmonary tuberculosis, the fever reaches higher degrees and becomes remittent or continuous and absolute rest in bed is then essential.

The degree of success attainable with specific remedies when miliary tubercloses are forming throughout both lungs depends upon their earliest possible application and persistent use, and upon the general condition of the patient.

When such eruption occurs in the final stage of the disease, after the patient is greatly exhausted, the prospect must necessarily be a hopeless one.

In those cases in which the first extension to the lungs is of this character and extent, the prospects for good results would appear better, from the fact that in two cases I have met with at least so much of success that, although the patients did not come under my care as early as might have been the case, the acute symptoms were controlled and the fever subsided; subsequently, however, destructive changes occurred in both patients; one died, but in the other an entire arrestment was accomplished and maintained for over two years to the present time.

The treatment of the absorption fever which occurs with destructive and suppurative processes is necessarily general and symptomatic, since we have no direct remedy which can remove

the cause. Specific remedies directed against the tubercular process itself are of no avail against this fever, nevertheless I favor their administration in this stage also with a view of causing the disappearance of more recently formed tubercle and of preventing the formation of new deposits, so long as there is any reasonable hope that by general dietetic and hygienic measures, and by appropriate, symptomatic treatment, the destructive changes may be controlled.

With the softening of caseous tubercle the tubercle bacilli contained therein are liberated and further dissemination takes place by their absorption and distribution through the blood, and while the specific remedies can in no wise control the fever of this stage, they can and usually do prevent the formation of new tubercle and thus protect the patient against the fever which attends their formation, and we thus limit the disease to the area already involved.

The absorption fever is intermittent, frequently there is a sub-normal morning temperature. It may begin early in the forenoon, or later in the day, with or without chill—the more rapid the onset the more is it likely that chill or chilly sensations will coincide; it rarely subsides before evening, and may last into the night. In the latter case night sweats are quite common.

This form of fever is the constant attendant of destructive changes and of retained secretions, its degree and daily duration standing in relation to the extent of area involved and to the amount of organic matter absorbed; it is the chief cause for the progressive emaciation and loss of strength, contributes often and greatly to the patient's discomfort, robs him of necessary rest and sleep, diminishes the appetite and interferes with the digestion and assimilation of food.

In its treatment and management, I have never been able to satisfy myself of any real benefit derived from the internal or local use by inhalation of antiseptics, such as creasote, carbolic acid and essential oils. Neither has the use of anti-streptococci serum, even when the expectoration contained streptococci, given the slightest relief.

Hypodermic injections of creasote, guaiacol or carbolic acid in sufficient doses, do reduce the fever and act precisely like coal-tar derivatives, causing a more or less rapid fall in several hours, which is often followed by profuse perspiration; this is,

as a rule, followed by an equally rapid rise, sometimes with a chill, the same as we observe it after the use of acetanilid, anti-pyrin, or other members of this class, and the rubbing of guaiacol into the skin has the same effect.

Their depressing effect on the circulation, the discomfort attending the sweating, and the frequent return after only a short intermission of an even higher temperature, perhaps with a chill, would hardly justify their use in preference to other anti-pyretics, and none of them with the exception of quinin can be recommended.

In deciding upon the best measures to adopt for the fever in the individual case, we should observe closely the influence the fever appears to have upon the patient. Some patients bear fever much better than others, and when a patient can eat, digest and sleep well, there is a less indication to interfere than when the contrary is the case.

The first indication however, is to keep the patient at rest, and according to the time, place, season and weather, this may be in a well ventilated room, in bed or loosely dressed out of doors upon a cot properly protected against wind and weather.

Cold applications, either by the use of wet compresses or of the ice bag, should be reserved for patients presenting a hot skin, and asthenic condition. Many tubercular patients have a poor circulation to begin with, the skin is often cool while the fever is high; in such the prolonged application of cold is likely to induce chill and internal congestions, and adds greatly to the patient's discomfort.

Any considerable degree of exercise, even in the afebrile period of the day, increases the fever, both in degree and duration; the exercise must, therefore, be carefully supervised and regulated, for which the pulse is the best guide.

The beginning of local congestion in the lung is revealed by undue frequency of the pulse and shortness of breath, and if carried beyond this, by increase of cough; these symptoms must be strictly avoided, but within this limit whatever exercise can be taken, within an hour of the expected rise of the fever, is beneficial.

In most cases, the absorption fever begins quite regularly at about the same hour as on the previous day; this time must be anticipated by having the patient at perfect rest, physically as

well as mentally, at least one hour before the onset of fever on the previous day; the patient may lie either upon a cot, sofa, or reclining chair out of doors, when the weather is favorable; undressed and in bed, otherwise.

When chill initiates the fever, the patient *must* go to bed and hot water bottles should be placed to his feet, direct drafts of air must be guarded against, and all cold drinks or cold external applications must be strictly avoided. Hot stimulating drinks may be given.

By these anticipatory measures, the chills can usually be prevented, and if cold applications are used at all for the fever, they are only admissible after the temperature has reached about 101 deg. F., otherwise chill will still occur.

Under the continuance of such management, it will soon be found that the onset of the fever is delayed and the maximum temperature becomes less.

If the fever is not controlled by these measures, or if chilly sensations still persist, then quinin in sedative doses should be made use of at intervals of two or three days.

The general condition suffers less under the use of quinin and the effect is more lasting, the patient has several good days during the week, during which he eats better, and is in better spirits.

Its daily use is, however, frequently followed by deranged digestion, and in cases in which the stomach is intolerant, the bi-sulphate should be given hypodermically. Such use will not cause irritation if the preparation is pure, and if a cubic centimeter of warm water is used for every three grains.

With the evacuation of the liquefied tubercle into a bronchus the fever declines, and if only one focus of softening has been present, it falls to, or nearly to, the normal in the course of a few days.

A careful watch of the adjoining lung portion, and of the opposite lung, will soon decide whether a new eruption, by dissemination of tubercle bacilli from the destructive lesion, is in progress, and subsequent renewed rises of temperature of from 1 to 2 deg. without chill will soon make their appearance, if dissemination has occurred.

Such extension I have witnessed so uniformly that I feel like asserting that it is the rule. It takes place within about two

months from the time when the first evidence of softening and liquefaction has been observed. I have missed it with almost equal uniformity in all those cases in which I have administered purified tuberculin, and more recently the watery extract of tubercle bacilli, during the period of softening, or before, and during this time. In cases so treated, extension did not occur, and in many instances I had reason to believe that the destructive changes were thereby limited to the area where they became first evident.

While such evidence alone is entirely of a negative character, and no proof can be furnished that extension would have occurred had the remedy been omitted, there is more direct and positive evidence for the belief that these remedies stand in relation to such a result, and justify the claim for such action.

Before speaking of such evidence I wish, however, to state that neither these nor any other remedies can be hoped to convert caseous tubercle into living tissue, and that such caseous tubercles are always more or less liable to softening and destructive changes, when inflammations, as heretofore enumerated, occur in its immediate vicinity. This liability stands in relation to the degree of present encapsuling with a connective tissue wall, prior to the inflammatory complication.

Thus a bronchitis or an attack of grippe may be followed by softening, or not, according to the liability of the process extending to a caseous tuberculous deposit; this may occur at any time before or during treatment, and even subsequently when we have assumed a relative recovery of the patient.

The more direct evidence for the favorable action of specific remedies in the manner indicated, I believe to have observed in such cases which were treated when primary latent tubercular disease in one lung alone was present, and also such in which secondary extension to the opposite lung had taken place with well-developed physical symptoms. It has been an uniform observation that those physical symptoms diminished, in recent eruptions they disappeared entirely, while in older deposits the changes were such that the area giving abnormal physical signs was often greatly reduced, or the entire lung portion showed unmistakable improvement, both on percussion and auscultation.

Strikingly favorable results can, however, then be only expected when the patient's general condition is not yet bordering

on exhaustion, and when the local destructive changes are not so extensive that the exhaustion must necessarily occur from the long-continued fever due to absorption of disintegrating tissue, conditions under which the organism is no longer competent to limit the disease and cause the necessary repair.

In the last stages, the fever is frequently due to a combination of all the causes, and is beyond our efforts for its arrestment; general hygienic and dietetic measures, rest and climatic treatment may still modify it; quinin has still a temporary influence, and with the progressive emaciation and exhaustion the fever may even subside or be but slight for several months before death. I have seen many such instances in which the appetite again returned so that the patient took large quantities of food, but the loss of weight continued. At these periods complications arise frequently on the part of the larynx, and bowels, or both; often the temperature rises again toward the end, and pursues an irregular course until death.

In these last stages all remedies prove unavailing, exerting no influence upon the progress of the case, nor preventing the later eruption of miliary tubercle in distant parts which we often note to occur several weeks before death.

The inflammatory fever is always a complication, and, having no direct means for its control, prevention is of the greatest importance.

It is the expression of an acute inflammatory process in the lung produced by other pathogenic germs, and without such an occurrence most, if not all, the latent, circumscribed tubercular deposits would continue in this state.

The greatest benefit from climatic treatment obtainable is in the period of latency, by removal to localities where the liability to the contraction of colds, grippe and catarrhal affections of the air passages in general is greatly lessened.

Without considering the details of the general treatment of these inflammatory affections of the air passages during which the fever is continuous, absolute rest in bed is essential for the latter, and the greatest care should be bestowed even upon a common bronchitis the moment we know of, or suspect, the presence of a tubercular deposit.

If pneumonia is present it may be possible to determine whether the area involved was prior to the seat of latent tuber-

culosis or not, but involvement of one apex alone, especially in an adult, is a cause of suspicion.

Large doses of quinin have proved valuable in my hands for the aborting of such catarrhal pneumonia, and they appeared to favorably influence the early period of other acute, catarrhal inflammations in the lungs.

Too often these affections are allowed to assume more formidable proportions before medical advice is called in, and it may be then too late to avert destructive changes if a latent deposit has become involved.

Thus the early diagnosis is delayed—the true state of affairs is only revealed when the affection is unusually prolonged, and perhaps not until tubercle bacilli appear in the expectoration, after which a new eruption of tubercle is almost sure to occur.

After the completion of the resulting excavation, and after the arrival of the period of latency of the new deposits, like repetitions are apt to occur; the more frequently as the climatic conditions and the mode of life of the patients are unfavorable.

In whatever stage these acute inflammatory complications may occur the fever is only subject to symptomatic treatment.

SIMPLE FRACTURE OF THE LEG, WITH SPECIAL REFERENCE TO THE AMBULATORY TREATMENT.*

BY E. DENÈGRE MARTIN, M. D., PROFESSOR OF MINOR AND CLINICAL SURGERY
IN THE NEW ORLEANS POLYCLINIC, ETC., NEW ORLEANS.

It is not my intention to add anything new to this subject, but rather to emphasize, if possible, the rules to be adhered to, and to point out what I believe to be the essentials in the treatment of simple fracture of the leg; in short, the course of treatment which personal experience has convinced me will give the best results with the least inconvenience to the patient.

Some argue that just as good results are obtained with a fracture box as by any of the new-fangled methods; this is unfortunately true. Any physician may get excellent results by applying an apparatus of any kind that will immobilize the leg, but the one who has a thorough knowledge of anatomy and the spe-

* Read before the Orleans Parish Medical Society, April 23, 1898.

ific character of the injury he is dealing with, can apply the remedy more intelligently and is likely to get better results at all times.

CAUSES AND CHARACTER.—Fractures of the leg are due either to violence or muscular action. They may be of one or both bones, complete or incomplete, or complicated with dislocation, as in Pott's fracture. They may be longitudinal, oblique or transverse. By the old method of treatment when patients were kept in bed, with the fractured leg wedged in between two sandbags, for four weeks or more, the character of the fracture was of no special importance, but since the introduction of the ambulatory treatment a more accurate diagnosis is necessary, as much depends upon the site of fracture, its extent and the injury to the soft parts.

DIAGNOSIS.—The diagnosis of the fracture when both bones are involved is a simple matter, but more complicated when only one bone is broken, the swelling extensive and the deformity slight. I recall a case where the patient, a switchman, was struck on the shin by the foot-board of a switch engine. Although the blow was of sufficient force to cause a fracture of the tibia, he walked home, a distance of three blocks, experiencing but slight pain. I saw him several hours after the accident, the leg was much swollen, and I was unable to make out a fracture. Several days later, when the swelling had disappeared, my patient found it still painful when he attempted to walk. I was sent for and detected a transverse fracture of the tibia, without displacement.

Pott's fracture is produced by a fall on the foot, and consists of a fracture of the fibula, about three inches above the external malleolus, with a laceration of the internal lateral or deltoid ligament, and occasionally a chipping off of the internal malleolus, and results in the foot being twisted outward with slight dislocation of the ankle joint, the amount of deformity depending on the extent of injury. The diagnosis of Pott's fracture is simple and is readily recognized from the history of the injury and the deformity of the foot. The diagnosis of fracture is not always a simple matter, especially when the injured limb is seen some time after the accident. There should be no excuse, however, for error in a large hospital provided with an X-ray apparatus, and in every case of doubt the rays should be applied.

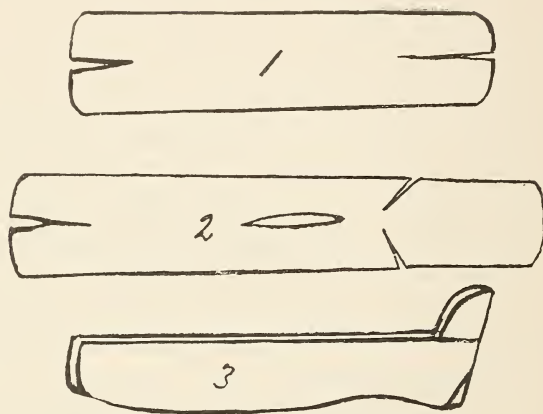
SEAT OF FRACTURE.—Fractures of tibia may occur at any point of the shaft, but are more frequent at the juncture of the middle with the lower third and are frequently accompanied by fracture of the fibula. Fractures of the tibia are produced by direct violence and may implicate the joints. Fractures of the upper half of the fibula without a break of the tibia are produced by violence. Fractures of the lower half are usually from muscular action or indirect violence; the deformity is never great.

REDUCTION.—If only one bone is fractured any deformity or displacement can be easily reduced by using the other bone as a fulcrum and the foot as a lever, and making a slight pressure over the seat of fracture while manipulating the foot. When both bones are fractured reduction is more easily accomplished by flexing the leg at right angles with the thigh, as in this position the powerful muscles of the calf of the leg, the gastrocnemius and the soleus are relaxed.

TREATMENT.—Good judgment and a certain amount of skill are important requisites in the treatment of fracture. It is to be regretted that any splint or apparatus that will immobilize the limb will often give good results, and many physicians are, therefore, satisfied to apply the crudest designs and trust to luck.

The first difficulty we encounter is setting the fracture, and in doing this, two assistants are necessary, and one should be experienced, as the bones once placed in proper position must be kept so while traction is made. This is not an easy task if a plaster bandage is to be applied, and to facilitate matters, I use a posterior gutter splint of pasteboard or metal, in which the calf of the leg is allowed to rest; this being fixed at either end with a bandage, is of material assistance in keeping the bones in position. This splint is left *in situ* and encased in the plaster or liquid glass. It is made as follows: A piece of card or pasteboard is secured, long enough to reach from a point about two inches below the bend of the leg to the heel, and about one-half the circumference of the leg in width. At the upper end of the wedged-shaped piece about a half an inch wide at its base and four inches long is cut out from the centre. When these edges are brought together a slight concavity will be formed in the upper end of the splint that will fit more accurately to the calf. At the lower end, a crescent-shaped piece is removed from the splint along the line of the tendon Achilles, which

will form a convex surface in the splint. The pasteboard is now immersed in hot water and as soon as it is soft enough to be pliable, is fitted to the leg over a thin dressing of cotton wadding. This soon dries, becoming hard and retaining the



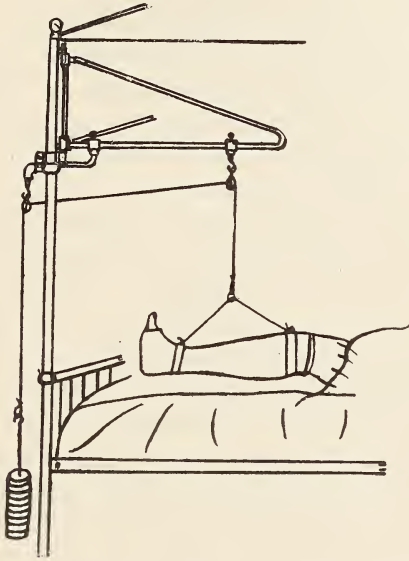
1. Pasteboard splint without foot piece. 2. Pasteboard splint with foot piece.
3. Splint moulded ready for use.

shape of the leg. If it is desired to support the foot, the pasteboard is left long enough to extend about eight inches beyond the heel, the sides are then incised obliquely at the heel and the end turned up at right angles and then secured.

In hospital practice where the X-ray can be used I believe every fracture should be set under the fluoroscope. I would therefore recommend that the following steps be taken in the treatment of simple fracture of the leg:

1. Preparation of the leg. Thorough scrubbing and local treatment of any wounds or excoriations.
2. Application of wadding or flannel bandage.
3. Application of posterior pasteboard splint, as the X-ray will not penetrate metal or plaster.
4. The application of the X-ray, when possible, to see that the bones are in apposition, and if not, any necessary correction should be made.
5. Application of permanent dressing, and my preference would be plaster of Paris. The patient should be left in the operating room for at least half an hour to allow the plaster to set. The choice of the bed is a matter for consideration. Stiff springs and a hard mattress are always to be preferred, as this will allow the patient to move about with greater facility, and last but not of the least importance is to suspend

the limb by means of a crane. The one I employ is so constructed that it can be adjusted to any bed and will allow the patient to move in any direction, and also to raise or lower the leg, in this respect differing from those in general use. Suspending the leg is important, for the reasons: first, it can be easily moved without displacing the bones at the seat of fracture, and thereby causing pain and delaying union, as is the case



when the foot is anchored in a heavy bandage between two sand bags, and second, because it allows great ease and comfort to the patients, allowing them to sit up in bed or to alter their position at will. The leg should be kept in this position until all swelling has subsided. The amount of traumatism and degree of swelling are potent guides in the primary treatment, and when extensive a temporary splint should be used. Upon the extent of injury much will depend. It has been my experience that the permanent dressing or bandage can always be applied at the end of a week, unless we should have the good fortune to see the case immediately after the injury before the swelling begins, then the ambulatory treatment should be adopted in all suitable cases. To Prof. Lewis Pilcher, of Brooklyn, we are indebted for valuable contributions on this method of treating fractures, which is fully described in the *Annals of Surgery*,

February, 1895, and July, 1896, though to Krause, I believe, is due the original idea.

Although it is applicable to fractures of any portion of the lower extremities, I shall deal only with that which refers to fractures of the leg. The treatment is best and most successfully applied to fractures occurring below the upper third, when the short splint can be applied. In fractures of the head of the tibia, involving the joint, Hodgen's suspension splint is (to my mind) the ideal appliance. The ambulatory splint is best described in the language of Professor Pilcher himself: "The bandage," says he, "is applied as follows: With foot flexed at right angles to the leg, a flannel bandage is smoothly and evenly applied from toes to just above the knee; this bandage is made to include, beneath the sole of the foot, a padding of ten or fifteen layers of cotton wadding, making a pad about three-fourths of an inch thick when it is compressed by the moderate pressure of the flannel bandage. Over this is applied the plaster bandage from the base of the toes to just above the knee, especial care being taken that the application is made smoothly and somewhat more firmly than is customary in the ordinary plaster cast. The layers of the bandage should be well rubbed as it is applied, with the view of obtaining the greatest amount of firmness with the smallest amount of material. The sole is strengthened by incorporating with the circular turns an extra thickness composed of ten or twelve layers of bandage well rubbed in together extending longitudinally along the sole. The bandage is applied especially firmly about the enlarged upper end of the tibia, and here it is made somewhat thicker. As it dries it may be pressed in so as to conform more closely to the leg, below the head of the tibia and fibula."

The bandage should be applied immediately and will prevent swelling, which is often due to movement of the ends of the fragments.

The splint can be reinforced by incorporating in the bandage wire gauze or tin strips, which should be allowed to lap under the sole of the foot and help to support the weight of the body. My method of applying the splint has been a little different. It has been my practice to pad the foot from the toes to a point just above the seat of fracture, covering the whole snugly with a flannel bandage; the plaster, being applied over the dressing,

holds the distal end of the fracture firmly suspended, while the weight of the body is supported by that portion of the body above the seat of fracture. I have been led to pursue this method as best suited to the cases which have come under my observation—that is, cases where there has been much swelling or the injury extensive, or where there is a great deal of tenderness over the seat of fracture. The cast should be allowed to remain on the leg for at least four weeks unless there is cause for its removal. I believe I have so fully demonstrated the value of this treatment at the Charity Hospital that it will be adopted in all suitable cases in the future, though to Dr. Gessner the credit is due for first having tried it, as will be seen by the report of a case by him, in the *New Orleans MEDICAL AND SURGICAL JOURNAL* of November, 1896; his was the first attempt in this direction in the hospital. I have succeeded in gathering a few cases which I will here report briefly, and which are sufficiently varied in character to demonstrate the great value of the ambulatory treatment.

CASE I.—Service of Dr. Parham; white; male; age 18. Compound fracture of middle third. At the end of the fourth week, when wound had healed, ambulatory splint applied, result good.

CASE II.—Service of Dr. M. Souchon; male; colored; age 28. General condition bad. Simple fracture of leg; middle third. Kept in bed thirty-eight days, at the end of which time there was still no sign of union. Through the courtesy of the doctor I was allowed to apply an ambulatory splint. The patient got out of bed next day and walked about with comparative comfort. The splint was removed at the end of four weeks. A large callous was formed with partial union. The condition of the patient undoubtedly accounted for this lack of union.

CASE III.—Service of Dr. M. Souchon; male; colored; age 55. Simple fracture of tibia. Ambulatory splint applied at once. Kept in bed one week, at the end of which time he was allowed to get up and walk about without assistance.

CASE IV.—Service also of Dr. M. Souchon; male; colored; age 32. Compound fracture of lower third. Confined to bed for more than two months. As soon as wound had healed an ambulatory splint applied. Now gets about without the use of crutches.

CASE V.—Service of Dr. Martin; colored; female; age 40. Simple fracture of both bones of lower third. Brought to the hospital in ambulance. Fracture set and put up in plaster. Sent to ward and leg suspended. End of second week bandage removed and ambulatory splint applied. Walked out of ward next day without assistance. Not heard from since.

CASE VI.—Service of Dr. Martin; colored; female; age 38; weight about 200 pounds. Fell a distance of fifteen feet. Compound fracture of both bones, lower third. Leg bandaged, sent to ward and leg suspended. End of four weeks wound had closed with partial union. Ambulatory splint applied. Left ward next day; did well; returned in two weeks; splint removed.

CASE VII. Practice of Dr. Martin. White, male, German extraction. Simple fracture of fibula, lower third. End of first week ambulatory splint applied, with posterior Levis splint applied. Able to attend to business with slight inconvenience.

CASE VIII. Service of Dr. Martin. Female, white, age 23. An old inflammation of the ankle joint, causing great pain and tenderness on pressure. Least amount of exercise caused so much discomfort that the patient walked about with the greatest difficulty. Counter irritation made with the thermocautery, the joint well padded, a plaster cast applied and the patient allowed to go about, which she did with little discomfort and no pain. The cast was left on for one month and a cure effected.

By the ambulatory method the time required for consolidation of the fracture is shortened, atrophy of the muscles and stiffening of the joints prevented; in old people bronchial complications are averted and the danger of delirium greatly lessened in alcoholic subjects. In conclusion I beg to state that I believe it is our duty to look to the best interest of our patients, and this means the course of treatment which will give the best results with the least amount of suffering and inconvenience, and especially the avoidance of such risks as are consequent upon old people who are confined to bed. A simple fracture of the leg is rarely a serious injury unless complicated by some other cause, and what can be more serious than an attack of hypostatic pneumonia in an old person? The advantages of the ambulatory splint in the treatment of fractures is too apparent

to need recital, and is destined to supersede all other methods when practicable. Though it has given me the most satisfactory results in the cases I have reported, there are many in which it is not applicable, and therefore must not be looked upon as the only form of treatment in simple fracture of the leg. And I am inclined to think it even dangerous in the hands of the inexperienced. The proper application of any plaster bandage requires practice; the application of an ambulatory bandage, skill.

AROMATIC TOXINS.

[CONTINUED FROM JUNE NUMBER.]

BY JOHN C. MCKOWEN, M. D., NEW ORLEANS.

The dual nature of yellow fever is due to two factors, first, pyrexia or fever, and second, aromatic toxins. Pyrexia is caused by the irritation and destructive process of bacillus icteroides; when this bacillus has produced intestinal hemorrhage, which I shall call the child of the bacillus, then the aromatic toxins get in their work through this hemorrhage, and for that reason I shall call these toxins the grandchildren of the bacillus. We know that aromatic toxins increase respirations, and from Dr. Jones' composite chart of forty-five deaths we find a sudden increase of respirations on third day with a heavy decline in temperature. This shows that enteric hemorrhage has taken place and the aromatic toxins have flooded the blood stream, producing intoxication of nervous centres. Stercobilin accompanies the toxins, and from third day on we can expect sclera or skin ought to show a yellowing, which Dr. H. P. Jones assures me took place more or less with skin in all cases during life of patient and was distinctly visible in sclera in every case.

From third day on there is a fight for mastery between bacillus and its grandchildren, aromatic toxins. Sanarelli's "septicemia" or my aromatic toxins completely exterminate their grandparent in 42 per cent. of all cases, according to Sanarelli, leaving 58 per cent. of cases in which the bacillus can be found more or less. Sanarelli considers his septicemia (my toxins) more dangerous than his bacillus.

I suppose that all these cases cited by Sanarelli proved fatal, since he found the bacillus very rarely during life of patient.

The statistics furnished by Sanarelli and Dr. H. P. Jones are incomplete for my purposes, as neither of these sharp and intelligent observers knew anything about aromatic toxins or took them into account. It is reserved for future statistics to furnish us sufficient data to recount the varying fortunes of the battle between the bacillus and its grandchildren, but from the composite charts of Jones, we see in the fatal cases that about the seventh day (and this agrees with Sanarelli's cycle) the marked and conflicting ups and downs of temperature, pulse and of respirations cease and a period of calm ensues. This on tenth day is broken up by a renewal of the battle (vomitings and other nervous troubles) until the climax is reached on twelfth day, when temperature (representing bacillus) and respiration (representing intoxication) give a grand battle terminating in the total defeat of temperature, which declines steadily and rapidly until sixteenth day, when death finishes the scene with a decided victory, I think, in favor of aromatic toxins.

In Jones' composite chart of twenty-five cures the conflicting ups and downs of temperature, pulse, and respiration cease on ninth day, and the battle is never renewed, as recovery ensues by aromatic toxins killing the bacillus *icteroides* before the latter can produce sufficient steatosis to suppress the functions of kidneys in excreting urine. Lesions of intestines and stomach heal, and aromatic toxins are eliminated by kidneys and excreted in urine.

It appears that 80 per cent. of the heat production of human body [thermogenesis] takes place in the heating nerve centre, the nucleus caudatus, or in the nerve fibres leading from that centre to the muscles. Thermolysis or heat-loss takes place in our skin to the extent of 80 per cent., and from lungs and feces, 20 per cent. Heat regulating (thermotaxis) centre is in the cortex cerebri.

Pyrexia can come from fevers of three kinds: (1) infectious, resulting directly from bacteria; (2) symptomatic, occasioned by local inflammations; (3) neurotic, produced by functional or hysterical disturbances of thermotaxis centre.

Now comes the question, under what head shall we place yellow fever? It commences as infectious due to bacillus *icter-*

ides, then may become symptomatic from gastro-enteric inflammation, but not from aromatic toxins, which certainly produce nervous disturbances, but never produced fever with Walker Langfelder, my brother, or myself.

The bacillus icteroides produces very rapidly a steatosis which invades the secreting glands, and especially the kidneys, whose functions as secretors become disturbed or completely destroyed and in the latter case complete suppression of urine ensues. I shall show later on that all the symptoms of uremia are due to aromatic toxins except one, and the one exception is the complete or almost complete paralysis of function in kidneys of secreting urine, and this cessation of function produces a neurotic fever. Sometimes during a steady decline of temperature in a yellow fever patient (or temperature is stationary) steatosis or hemorrhage causes a complete cessation of function in kidney, then there is a sudden rise in temperature with increased symptoms of aromatic intoxication until death ensues. This fever is neurotic, due to functional disturbance which affects thermotaxis centre, and is not due to the infectious fever produced by bacillus icteroides.

Jones' composite chart of forty-five deaths shows that not a single case died of infectious fever. The average temperature for four days before and at death was 95 deg., 4 deg. less than fever heat. Sanarelli observed and lays stress on the entrance of a disturbing agent which ended the disease, long before the specific agent (the bacillus icteroides) could, by suppressing the vegetative faculty of the icteroides and its consequent increase, or by destroying its vitality completely.

A composite chart gives a composite result only, and this chart of Dr. H. P. Jones does not pretend to deny that certain cases had a fever temperature at death, but it shows clearly that the yellow fever is a misnomer for the complex symptoms of temperature, pulse and respiration of a disease produced by a bacillus, as so called yellow fever undoubtedly is, caused during the first two days. Out of the 202 cases of this disease under Dr. H. P. Jones' care at the Isolation Hospital, there were 157 recoveries and 45 deaths. In all these 45 deaths the kidneys became diseased, and complete suppression of urine occurred in 73 per cent. of these 45, while other evidences of acute inflammation of the kidneys occurred in every case of the remaining 27

per cent. Sanarelli has told us that we can find his bacillus, usually united in little groups, always situated in the small capillaries of the liver, kidneys, stomach, etc., and Dr. O. L. Pothier, microscopist and bacteriologist of Charity Hospital, has told us in the *Journal of the American Medical Association* of April 16, 1898, how the kidneys become so changed in structure by the action of bacillus icteroides that they can no longer functionate properly.

“The kidneys usually presented an acute inflammatory condition, being congested and at times intensely so. In some cases infarcts were found and also interstitial hemorrhages; these hemorrhages, usually small, attained in some the size of a pigeon's egg. Although generally in the substance of the organ, these hemorrhages were found sometimes in the pelvis and calices of the organ. The fatty degeneration was well marked, as a rule, and characteristic in its situation in the majority of autopsies. It was more marked in the cortex immediately at the edge of the malpighian pyramids, forming arches around that border and radiating toward the cortex of the organs. In a few cases this degeneration was contrasted by the intense congestion in the same situation. This peculiar arrangement of the fatty degeneration was noticed in the first autopsy on a yellow fever case held in New Orleans during the last epidemic, and was afterward noticed in every case.”

Sanarelli has shown us what fearful enteric hemorrhages are produced by his bacillus. I have shown how the aromatic toxins enter the blood stream in large quantities through these enteric hemorrhages produced by bacillus icteroides, and how these aromatic toxins can be eliminated as harmless conjugated sulphates from blood stream by the urine when sodium sulphate is used. Mateo had found empirically that sodium sulphate used in large doses as a cathartic removes fecal matter from intestines, and thus cut short, when taken in time, the morbid processes caused by bacillus icteroides, and with little damage. I have shown how the putrefying proteids in colon produce the aromatic toxins, that these toxins can be removed more quickly, that colon can be disinfected and lesions of colon healed by using enemas of boracic and tannic acids, and that calumba and nux vomica taken internally complete the cure of nervous and gastro-enteric troubles. Pothier has thus shown that if bacillus

icteroides be left to itself, it produces not only steatosis of kidneys pointed out by Sanarelli, but also hemorrhages and infarcts in kidneys, and these pathologic-anatomic changes prevent kidneys from functioning normally.

This cessation of function, however, is not necessarily fatal since four out of the one hundred and fifty-seven recoveries had a total suppression of urine, and then the kidneys recommenced their functions.

Probably the sudden extinction of all the bacilli icteroides by the aromatic toxins enabled the kidneys to resume work in these four cases, for living cells possess the property, after the cause of a morbid process has been removed in time, of righting the damage done and of resuming interrupted functions.

This fact proves that, even after suppression of urine and a total retention of aromatic toxins for a while in blood stream, recovery is possible, and future experiments may show which one or what combination of the aromatic toxins kills the bacillus icteroides so suddenly as to put an end to all pathologic processes and by allowing the resumption of functions to kidneys all the toxins can be eliminated. If skatol can accomplish this, then doses of skatol, administered as soon as suppression of urine shows itself, may relieve kidneys; or skatol might be used as a bactericide for the icteroides even before suppression of urine, as a remedy against steatosis and consequent suppression of urine; once the steatosis has produced so great changes in the structure of kidneys that the killing by aromatic toxins of all the bacilli of Sanarelli could not produce a resumption of functions in kidneys, then death would necessarily result from the toxic symptoms of so-called uremia, which is in reality an aromatic intoxication. Is it possible that aromatic toxins, when in normal quantities in blood stream, and I mean by the word normal, when they are in such quantities that they are easily and completely turned into harmless conjugated sulphates by the simple sulphates of the alkalies existing normally in blood stream—is it possible that these aromatic toxins perform a disinfection of blood stream before they are reduced to conjugated sulphates? Phenol and cresol are certainly disinfectants in the small quantities found normally in blood stream. Have they no beneficent action in blood stream when they are in normal quantities?

Comparing my own uncomplicated case of gradual aromatic intoxication and gradual cure with a fulminating intoxication and speedy cure as in yellow fever, or the gradual death of Walker with the fulminating death of yellow fever, will throw some valuable side lights on the development of both forms.

With me seven months elapsed between the attack of dysentery, malaria, gout and rheumatism acquired in 1896 by a visit to unhealthy places in the Orient during the hottest summer months and the attack in 1897 of hepatic colic with turning yellow, offensive odor of skin, and especially of armpits, with remarkable diminution in weight in a very short period and with disagreeable nervous exaltations of irritability and depressions, which caused me to avoid all society, although normally very sociable by nature.

During these seven months I had to combat the lax condition of the sphincter ani and of the intestinal canal, as sudden and unaccountable paroxysms of peristaltic action—probably from bile floods formed by cholesterin which hemmed free exit of bile from duct until a certain quantity of bile was formed in gall bladder and then broke suddenly into duodenum—would sometimes force me to stand still in the street or leave off any work in hand and use all my nervous force to prevent feces from escaping. These attacks were always followed by constipations. The gases which passed per anum, became more and more putrefactive in odor, copious night sweats occurred and perspiration commenced to have an offensive odor, attacks of nerves deranged all my previous habits to such an extent that the beautiful walks and the delightfully bracing climate of Capri no longer tempted me to take long, daily promenades as formerly. From time to time very copious, hot burning floods of bile shot suddenly out of the ductus choledochus into the duodenum and I could feel their passage through the whole intestine to the rectum. I was compelled to run for the water closet to evacuate this burning mass, which had cholesterin in it, which irritated intestinal mucous membrane and stimulated peristaltic action and brought on a copious action of the bowels. I felt that a degenerative process of nerves and intestines was going on, but I hoped and thought it would pass, as I had always been an exceptional strong, robust man, and I was putting on flesh during this

period of seven months. I thought, that since bile floods were produced by a morbid process which obstructed the ductus choledochus, all my trouble came mainly from the liver.

I am disposed now to think differently, for although cholesterin is found wherever protoplasm is present and seems to be an essential constituent of every living cell, yet its history and use in the body are absolutely unknown. The cholesterin of the bile is looked upon as a product of nerve disintegration, since this substance is found abundantly in the central nervous system; but we have no positive evidence for or against this view, as this part of chemistry is so new. This theory is adopted, however, by intelligent men and my case certainly bears it out. It is certain that on Easter Sunday of last year a sufficient quantity of cholesterin was formed in the gall bladder to obstruct completely the ductus choledochus and a hepatic colic ensued. The horrible pain and the gastro-enteric disturbances which accompanied this colic hastened the nervous and enteric degeneration to such an extent that two days after, when the gall bladder had been freed completely of its contents, a deep jaundice, and all the other symptoms described above, intervened.

As an important fact concerning the bad odor exhaled from the skin I ought to add that the foulest odor I have ever smelled in my life was that proceeding from Walker's sperm when an occasional ejaculation took place.

The proximity of the vesiculæ seminales to the cecal valve gave to them probably a greater share of the aromatic toxins than to any other secretion or excretion of the body, and as these involuntary ejaculations took place only at intervals—and very rare intervals—of several months on account of his extreme weakness, it may be that the ejaculation was brought about by the effect of the toxin on the ejaculatory nerves of Walker. Another important fact is this: while washing out the rectum and colon three times daily with a solution of boracic and tannic acid by means of a fountain syringe hung as high as possible to force enema as far as possible into colon, I was suprised to see how often there arrived a space of forty-eight hours at a time when no fecal matter came out, but only limpid pure water mixed with shreds and casts. This proved that the constipations occurred in the cecal region, and this was confirmed by a feeling of dull,

heavy pain in the cecal region when these constipations occurred.

The conclusions I have arrived at are not hasty and I have written them out because, even if I have erred in some things, they prove the necessity of rectal and colonic antiseptics, which has been neglected hitherto in many diseases where it might have saved life, and it can be tried in all cases where a gradual decline anemic, chlorotic, nervous or otherwise shows itself, for the septicemic products of the body, their possible developments into toxins and their elimination have been closed books until within a few years. When Lister applied the bacteriologic discoveries of Pasteur to modern surgery, and thus accomplished the greatest advance in medical science ever accomplished by any one man, for those whose lives he has saved can now be numbered by the millions during his lifetime, he was ably seconded by bacteriologists for whom he cut out a lot of work whose importance increases yearly, as its horizon widens, and thereby our notions of surgery grow clearer every day. I trust that chemists may give equal help to me in fixing quantitatively these aromatic toxins. It rests with them to find some possibly better alkaline sulphate than sodium sulphate, which can be easily put into the blood stream to form conjugated sulphates in the urine, and determine thus by comparison the excess of aromatic poison furnished to blood stream by intestinal lesions or other morbid processes. I hope they may find some test which will do more, viz. : show the exact amount of aromatic toxins furnished to blood stream, and the peculiar toxic action of each toxin ought to be determined.

These toxins and the remedies will furnish to modern medicine as important a branch as bacteria have furnished to modern surgery, and will clear many a dark spot away from our practice of medicine, gaining one more important battle in favor of health over disease.

The similarity between the smell of indol-skatol, which I extracted several times during my work in the Physiological Laboratory of the University of Munich, Germany, under Professor Voit, and of the odor, exhaled by my own armpits for months, induced me to think there must be some connection between the two. The increased amount of indican in urine and the color of my skin (which exhaled the skatol odor to a

less extent than the armpits) bore out this connection. The aromatic toxins are certainly generated in a yellow stercoreal mixture, and Merck's preparation of skatol has exactly the same color as that deposited on the armpits of my undershirts during perspiration.

Merck gives Beta-Methyl-Indol as the equivalent of skatol, which latter is a constituent of human feces, and can be produced by passing egg albumin with potassium hydrate; these formula are $C_9 H_9 N = C_6 H_4 (CC H_3) C H N H$. It consists of white thin scales and very disagreeable odor, soluble in hot water, alcohol, ether, benzin and chloroform; melts at 93 to 95 deg. C. Phenol is too well known to call for any mention here, but I give the formula of the conjugated sulphate, which renders the poison innocuous, and allows it to be excreted from blood stream into the urine, by which it leaves the body:

Phenol + acid potassium sulphate = potassium phenyl sulphate $C_6 H_5 O H + S O_2 \begin{array}{l} -O H \\ -O K \end{array} = S O_2 \begin{array}{l} -O C_6 A_5 \\ -O K \end{array} + H_2 O$.

Since we have just passed through an epidemic of yellow fever and another epidemic may occur, I would lay stress on the necessity of frequent and copious antiseptic enemas from fountain syringes as aids to sodium sulphate taken by mouth. I know no better enema for rendering antiseptic the dangerous masses of putrefying proteids than boracic acid and for the hemorrhagic enteritis than tannic acid. They can be mixed in the same enema to save troubling patient uselessly, and by a little practice patient can retain large amounts of liquid. Enemas, better tepid, so as not to irritate peristaltic action, should be repeated until they come out as clear and limpid as they went in. Furthermore, these antiseptic enemas ought to be used in every case where there is the slightest suspicion of a lesion or lesions of mucous membrane of lower intestines, to be suspected when jaundice appears, whether the lesion be nervous—trophic, catarrhal, dysenteric, or otherwise.

Most important of all, it would be well for those using concentrated foods to clean out rectum and colon with such an enema every day, as one cleans the teeth, and if man must choose between cleaning teeth, which commence digestion and produce thereby no dangerous results, or cleaning colon and rectum, which finish digestion with terrible dangers from putre-

fying proteids, he had better choose the latter, as by far the more important of the two, although it would be still better for him to do both.

I think that daily enemas of boracic and tannic acid, with occasional large doses of sodium sulphate used during an epidemic would deprive any bacilli of Sanarelli, taken into the body by mouth or otherwise, of a hotbed of putrefying proteids in which they could increase rapidly and from there invade all the tissues.

Such enemas and doses would certainly fortify any one doomed to an attack by depriving the bacillus *icteroides* of a most dangerous ally; for the removal of this large mass of putrefying proteids from the influence of a heightened fever temperature, under which putrefaction of proteids and the growth of aromatic poisons would certainly increase, could only lighten the sufferings of yellow fever patients and lessen the work of physicians in reducing the mortality of the disease to such a point that it would no longer be considered a menace to public health and to commercial prosperity.

I may add here that indoxyl sulphate of potash (the conjugated sulphate of indol) is often spoken of as indican, since on oxidation it yields indigo blue. If urine containing this body be treated with hydrochloric acid and a drop of chlorine water, a bright blue color is produced from the formation of indigo. The formula of indoxyl potassium sulphate is $C_8 H_6 N S O_4 K$, colorless, soluble salt; in blood stream undergoes oxidation before conjugating with sulphuric acid.

As a further proof of what I assert I quote from a medico-chemical work published in 1896 the following statement about "one of the monobasic acids, valerianic, found as ether in the valerian root and as ammonium valerianate in the secretions, especially of small-pox, typhus fever and yellow fever, giving these diseases their characteristic odors; it is also present in the fecal excretions."

This statement shows a connection between smell of skin and fecal excretions during the morbid processes of three dangerous diseases. The writer, Lawrence Wolf, M. D., demonstrator of chemistry of Jefferson Medical College in Philadelphia, page 162 of his *Medical Chemistry* of 1896, does not say when this

odor commences in yellow fever, whether before or after the yellowing of the skin. If before then it is very likely due to the toxin generated by the bacillus icteroides, and this fact, that a similarity exists between the smell of toxins produced by bacillus of yellow fever and the bacilli of small-pox and typhus fever, may furnish a key to the habits and manner of formation of these latter and must assist somewhat in their discovery. I have shown already that if the aromatic toxin, skatol, is a poison in yellow fever, it is a secondary toxin due to enteritis produced by Sanarelli's bacillus and it interferes in no way with the toxin of icteroides bacillus.

All these peculiar odors, occurring only when morbid processes are going on, are sure signs to me of toxins resulting from putrefying proteids or the work of bacteria. Whether the same bacteria can produce in different parts of the inside of the body, and especially in the different mucous membranes of the lungs, intestines and various ducts, different toxins, or produce a different disease by attacking the same class of membrane in a different part of the body and evolve the same toxin, is one of the curious questions to be answered by future bacteriologists. We know that the same chemicals under different circumstances of heat, light, etc., produce different combinations.

These toxins are very elusive substances to chemists, and our knowledge of the organic poisons is so slight that to fix definitely their chemical qualities, their toxic effects and their cure will be a difficult task. But it is a task which modern medicine must confront courageously, as the future of modern medicine depends on its successful solution. It rests with us practitioners to formulate the question and restrain its limits so as to prevent useless work for chemists.

When it was pointed out that diphtheria owed its fatal effects, not to the membrane or to the bacteria, but to the toxin generated by the bacteria, which were protected by this membrane during their fabrication of toxin, then the chemical specialists, having certain data to work on, tried to find antitoxins, and Roux and Behring found theirs, which point the way, probably, to finding a more complete one, or at any rate the diphtheric toxin has opened the eyes of medical men to the dangers of toxins, and Roux and Behring have shown the possibility of finding antitoxins to combat them.

Physicians are more handicapped by these internal toxins than surgeons are by bacteria and the toxins met with in surgical practice, for surgeons can see the bacteria and the processes of fabrication of toxins go on under their eyes. Physicians can not look into the canals of the body, be they respiratory, intestinal, arterial, venous, lymphatic, or glandular, to see the morbid processes going on there, they must diagnose from such complex symptoms as rise and fall in temperature, respirations, pulse, the chemic and microscopic constituents of the excretions from mouth, bladder, anus, nose, eyes, ears, and skin, and the color and odor of the skin and mucous membranes. Chemistry has pointed out the urine as the greatest of all assistants to thorough diagnosis, and now I would ask chemists to attack a much more difficult and elusive problem, that of intestinal excrement, for I am sure that chemists will thereby furnish to physicians new means of diagnosis of old and well-known diseases and point the way to the discovery of new and well-defined diseases, which are at present jumbled together in a very unsatisfactory and unscientific way to perplex new and old physicians. I am sure that fecal excrement will furnish a much richer field for diagnosis and discovery than urinal excrement has furnished or will furnish, because colon and rectum are absorbing vessels and the bladder is not.

If I am correct in my observations and deductions, I have placed under one morbid process, viz.: that of aromatic toxins (skatol, indol, cresol, phenol and others, probably) these processes:

1. Neurasthenic, such as irritability and depressions, production of cholesterin in gall bladder, vomiting, nausea and anorexia, paralysis and dilatation of stomach, coldness of extremities and chilliness of body, night sweats, difficulty of breathing, which did not come from dilatation of stomach, but from poisoning of vagus, because difficulties in breathing occurred before dilatation of stomach and persisted after dilatation was cured, constipations, mucous colitis and ulcerative enteritis and colitis with enormous wasting away of tissue.

It would seem from these facts that aromatic toxin poisoning produces pre-eminently a nervous and a nervous-trophic disease.

2. That yellowness of the skin does not always proceed from liver and liver troubles, by absorption of bilirubin and bili-

verdin into blood stream, but may come from intestines and by absorption of hydrobilirubin and urobilin, the coloring matter of human feces and urine.

3. That a pronounced odor of skatol is exhaled from the skin, and especially from the armpits, or from saliva, or from sperm.

4. That the presence of large quantities of putrefying proteids in lower intestine is a menace to human life, especially with those who eat concentrated foods and suffer constipation, as do inhabitants of warm countries, on account of their lazy habits, and especially those around the Gulf of Mexico and coasts of North and South America, where long or extremely hot summers prevail, which cause frequent lesions of the intestines through diarrheas, dysenteries or bloody fluxes, and where carnivorous and concentrated diets prevail, thereby causing a large amount of proteids in lower intestines, whose putrefaction produces the aromatic toxins, indol, skatol, cresol, phenol, and other proteidic poisons, whose absorption into the blood stream can be so increased by intestinal lesions as to become a morbid process dangerous to life.

5. That putrefying proteids in intestines under the above circumstances, and especially when yellow fever produces such terrible lesions of the intestines as to present a bleeding and absorbing surface of the whole inner intestinal tract for the sudden absorption of aromatic poisons to an exaggerated degree, furnish to an epidemic of yellow fever its greatest source of danger.

6. That the bacillus *icteroides* of Sanarelli may find its genesis in this mass of putrefying proteids, and certainly finds recruits for its deadly work in these proteids.

7. That sodium sulphate in its quality as a cathartic by removing these putrefying proteids, and in its quality as an alkaline sulphate which forms harmless conjugated sulphates with the aromatic toxins and the use of enemas from fountain syringes of boracic and tannic acids will assist sodium sulphate as a cure or a prophylaxis by disinfecting lower intestine and curing lesioned surfaces of colon and rectum. I would, as the result of these observations, formulate for chemists the following:

1. Segregate more perfectly the aromatic toxins, skatol, indol, cresol and phenol, which we know exist in human feces, and any other aromatic or odorless toxins not discovered as yet, but

suspected from the presence of ammonium valerianate in small-pox, typhus fever and yellow fever, during which morbid processes this odor is exhaled from skin and feces of patients.

2. Study separate effects of each aromatic toxin and complex effects in combinations on animals after their segregation.

3. Furnish to practising physicians by the presence and quantity of conjugated sulphates in urine or other chemical process a diagnostic means of finding out lesions in the intestines which allow the absorption of aromatic toxins in dangerous quantities into the blood stream, so that physicians can heal these lesions before a dangerous absorption of aromatic toxins endangers life.

I do not pretend to say that all the symptoms cited by me, especially in my own case, were due to aromatic toxins, for extraneous causes may have entered, but in all those symptoms common to Walker and myself I claim that they were due to these toxins. I need not say how difficult it is to get a good history of the commencement and manner of procedure of a long disease not witnessed by a physician from the beginning, even from a very intelligent patient as Walker was. A patient simply answers questions put to him, and I could not put proper questions until I had had the disease myself and had concluded that aromatic toxins were the cause of it.

I ought to add that I have controlled all my knowledge of physiological chemistry, acquired under Professor Voit in the Physiological Laboratory of the University of Munich, in Germany, by the admirable book on Human Physiology, second edition, 1895, written by Dr. Ernest H. Starling, Joint Lecturer on Physiology at Guy's Hospital, London, England.

[TO BE CONTINUED.]

VARALETTES.—This is the name given by the London house of Alfred Bishop & Sons, Ltd., to their compressed effervescent tablets. The house is an old and well-known one. We learn that it was among the first to make effervescent tablets, and that its products have always been regarded as unexcelled.

—*New York Medical Journal.*

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

THE STATE BOARD OF HEALTH.

The Constitutional Convention provided for legislative action to create a true State Board of Health, specifying that it was to be composed of physicians from various sections of the State; also for parish and municipal boards of health.

The rough draft of a bill, or rather suggestions to be embodied in a bill, were considered at the last meeting of the State Medical Society. After much study and discussion these suggestions were amended and then adopted by the society practically unanimously. The legislative committee of the State Society was instructed to have the measure properly drawn on the lines adopted and to push its passage at the present session of the Legislature.

Owing to delay in the appointment of the legislative committee, this has not been done and, as the session of the Legislature is getting far advanced, the Orleans Parish Medical Society has moved in the matter. A special committee, in conjunction with its legislative committee, has drawn up a bill on the lines recommended and will endeavor to secure favorable action thereon.

We understand that several other bills have been or are to be presented on the same subject. We judge that they will all have some features in common, and no doubt some flaws will be found also in all. An objection is urged against that suggestion of the State Society which gives only one representative to the so-called Hill parishes. The Shreveport Medical Society calls attention, and justly so in our opinion, to the fact that these parishes have a population of over 300,000; include the important cities of Shreveport, Monroe and Alexandria, and should have better representation. On the other hand, an otherwise excellent bill, as far as a newspaper account allows us to judge,

fathered by Senator Batchelor, could be improved by being made to conform with the State and Parish Societies' measures on two points: one providing for the appointment of the members of the board by the Governor from a list furnished by the State Society, the other giving the Board of Health of the city of New Orleans its own president.

The public, as well as the medical profession, clearly recognizes to-day that appointments of this kind should be as much as possible removed from politics; the mutations of the latter are such that while we can consider ourselves safe to-day we can not know when a governor might use such position for selfish ends. What better safeguard can there be than to have the choice of medical men restricted to names endorsed by the organized and representative profession of the State?

The Board of Health of the city of New Orleans should have its own head. One of the great objections to the present system is that the State board is really only a city board, and that too much attention must be devoted to local details. Let the State board have control of quarantine, disinfection and detention against contagious and infectious diseases, and supervise sanitary and hygienic measures throughout the State, but let the city of New Orleans enjoy the same privileges as are to be extended to other cities of the State—namely, a board with a head of its own to manage its local sanitary affairs—not a sort of hybrid concern.

We believe that intelligent consideration of these health bills by the proper legislative committee can reconcile these differences and lead to the reporting of a very fair and satisfactory law. We hope the committee will give all a hearing and give due weight to the various arguments advanced.

THE FRUITS OF MEDICAL CHARITY.

At every metropolis, the supply of facilities for the treatment of the pauper class has outgrown the demand for it. In some communities the bid is made for clinic practice through multi-form inducements, with a view to the public advantage of the dispensary physician.

In the beginning, the hospital and its dispensing were essentially for the pauper class, and for the most part they

were under civic control and management. The lower classes, a shade above pauperism, rebelled against being sent to the hospital, then classed with such institutions as the almshouse and the city jail.

To supply the desideratum of the medical profession increasing in numbers and wealth, and with a growing spirit of competition, stimulated by multiplying medical schools, hospitals and dispensaries have been placed at every possible point of usefulness in the larger cities.

Now, the cry goes out from the medical profession that these charities are being abused by those able to pay; that the average practitioner, even the hospital or dispensary physician, is having his income curtailed by these public institutions, which do not provide regulations limiting public charity to the deserving.

All this is a natural outcome of the beginning, and the end is not yet.

It is simply one phase of the Darwinian law, and, as time goes on, the evolution of medical practice must eventuate. The public goes to the hospital because the facilities are better there than at home; the services furnished there are of the best, and the economy is apparent.

Legislation for the protection of the medical profession has always been slow because the layman does not sympathize with the physician's plea, and especially when this plea curtails the privilege of the laity.

With the improvements in hospital facilities, developed under the protection of the State and by private bequests, the tendency to curtail their public and wholesale dispensing must grow weaker and less. The outcome is not far distant, as we have before now editorially held. The State, or community, controls and directs even where private charity may have originated the institution. Physicians and surgeons are always plentiful, and even if a proper spirit of self-defence is engendered in those incumbent in office, their retirement would only mean that their places would be filled by other men less scrupulous or more selfish. The time is coming when this attitude must be taken, and then public charity must supplant medical charity and the State institution will recompense the dispensers of medical service to the public.

This is not only a natural consequence, but it will soon be

necessitated. The old ambition for a professional calling has repleted the ranks of medicine to such proportions that every effort is being made to reduce the oncoming numbers. The practice of medicine has already been placed upon a possible commercial plane, and, with the growing of the abuse of medical charity, the future is not promiseful and the solution is evident, for when the time comes for the revolt against public service, the provision must be made for it and that by the State, as the natural protector and care-taker of the pauper or parasite class.

DR. KENNEDY'S RESIGNATION.

The medical public was pained to learn that Dr. T. S. Kennedy, the president of the Board of State Medical Examiners, had resigned. Every one knew how much interest the doctor had taken in the duties of his position, and how zealously he had worked to have the law improved and to have it properly enforced. His labors have borne fruit, and that they were appreciated was shown by the fact that only a year ago, his term having expired, his name was sent in again by the State Society, and Governor Foster promptly appointed him to succeed himself.

We know that the work at times interfered with his practice. He, however, kept his post until all legal assaults on the law had been repulsed. The Supreme Court of the State having finally decided in favor of the practice act, he felt that the chief battle was won, and that he had earned the right to leave the continuance of the war against charlatanism and incompetency to other able leaders. The sentiment called forth by his resignation is well voiced by the following autograph letter of his Excellency the Governor of the State:

“ Dr. T. S. Kennedy, New Orleans:

“ DEAR SIR—Your resignation as a member of the State Board of Medical Examiners has been received, and I accept the same with great reluctance.

“ Your faithful and conscientious services in connection with this board and its presidency have been fully appreciated by those in position to know how constant and valuable they have been, and, while expressing my own appreciation of your ser-

vices, I must convey to you my sincere regret at your resignation.

“ With high regard, yours truly,

(Signed)

“ MURPHY J. FOSTER.”

In connection with this subject, we are glad to announce that the bill proposing to repeal or emasculate the medical practice act has been unfavorably reported by committee, and has, in all probability, received its quietus.

We learn that two excellent names will shortly be submitted to the Governor for his selection of a successor to Dr. Kennedy, and have reason to expect that the board will continue the good work if the Legislature wisely leaves the law alone.

Medical News Items.

THE AMERICAN MEDICAL ASSOCIATION met in Denver, June, 1898. The attendance was large, as was expected. The New York State and County Medical Societies and the New York Academy of Medicine were denied representation at the next meeting, to be held at Columbus, Ohio, June 7 to 10, 1899.

The following officers were elected for the ensuing year:

President, Dr. Joseph McDowell Mathews, of Louisville, Ky. ; first vice president, Dr. W. W. Keen, of Philadelphia, Pa. ; second vice president, Dr. J. W. Graham, of Denver, Col. ; third vice president, Dr. H. A. West, of Galveston, Texas ; fourth vice president, Dr. J. E. Minney, of Topeka, Kas. ; secretary, Dr. William B. Atkinson, of Philadelphia, Pa. ; treasurer, Dr. Henry P. Newman, of Chicago, Ill. ; librarian, Dr. G. B. Webster, Illinois ; members of the board of trustees, Drs. Alonzo Garcelon, of Maine ; I. N. Love, of St. Louis, Mo. ; H. L. E. Johnson, of Washington, D. C. ; T. J. Happel, Tennessee ; judicial council, Drs. S. Bailey, Iowa ; D. R. R. Brower, Illinois ; N. S. Davis, Illinois ; H. D. Didama, New York ; D. Mason, Washington ; F. T. Rogers, Rhode Island ; M. B. Ward, Wisconsin ; W. B. Jones, New Jersey ; general addresses, medicine, Dr. J. C. Williams, Pennsylvania ; surgery, Dr. Floyd McCrea, Georgia ; State medicine, Dr. D. R. Brower, Illinois.

The nominating committee also suggested that hereafter the local committees shall bear all expense of meeting place, registration offices and postoffice, and that the proceeds of the exhibition hall go to the general association. Dr. Starling Loving was appointed chairman of the coming committee of arrangements, and Dr. E. W. Woodruff, assistant secretary. The 1899 meeting will be held from June 7 to 10, inclusive.

THE SHREVEPORT MEDICAL SOCIETY has issued a circular remonstrating against an unequal representation, to the injustice of the hill, river and plain parishes. The circular urges the consideration of such amendments as will equalize the representation.

AT THE MEETING OF THE AMERICAN ASSOCIATION OF MEDICAL COLLEGES, AT DENVER, Dr. Montgomery S. Crockett, of Buffalo, N. Y., created a whirlwind of discussion by a paper on better pedagogic methods, in which he severely criticised present methods of medical education. The nub of his criticism consisted in a statement that a perfect system of education should arouse the mental energies of the student, whereas present methods tended to awaken the intellect of the tutor.

The following colleges were elected to membership in the association: New Orleans University Medical School, Tufts' College Medical School, University of Virginia. Officers were elected as follows: President, Dr. H. O. Walker, of Detroit; senior vice president, Dr. H. Bert Ellis, Los Angeles, Cal.; junior vice president, Dr. G. E. Woody, Louisville, Ky.; secretary and treasurer, Dr. Bayard Holmes, Chicago.

THE RICHARD MILLIKEN MEMORIAL FOR CHILDREN.—On May 28, the exercises of laying the corner-stone of this institution were held. Notwithstanding the hour in the afternoon and the heat of the day, there was a considerable attendance. The Mexican Band dispensed music in the intervals of the addresses which were delivered by the vice president of the Charity Hospital and the Governor. This building is well planned and will be a much needed addition to the present facilities of the Charity Hospital. Already it is well under way, and its completion will mark a new era in the hospital's history.

DR. GEORGE T. ELLIOT, one of our collaborators, formerly of New Orleans, has been recently honored by an election to the faculty of the new Cornell University Medical Department, now being established in New York. Dr. Elliot has for some year held the position of Professor in Dermatology in the New York Post Graduate School, as well as other important posts in several hospital services. In tendering our congratulations, we feel that Professor Elliot is yet alive to the interest New Orleans has in him, and that he will forgive our pardonable pride in his newly won laurels.

THE UNIVERSITY COLLEGE OF MEDICINE, Richmond, Virginia, graduated forty-nine physicians at the Finals, May 27, 1898. Dr. J. A. Hodges, proctor, presided. Dr. J. H. Claiborne, of Petersburg, Va., delivered the oration. An enjoyable banquet followed.

A BOARD OF OFFICERS WILL BE CONVENEED AT WASHINGTON, July 6, 1898, for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the U. S. Marine Hospital Service. Candidates must be between twenty-one and thirty years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character. The following is the usual order of the examination: 1, physical; 2, written; 3, oral; 4, clinical. In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate. The examinations are chiefly in writing, and begin with a short autobiography by the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene.

THE FIRST NATHAN HATFIELD PRIZE FOR ORIGINAL RESEARCH IN MEDICINE.—The College of Physicians of Philadelphia announces through its committee that the sum of \$500 will be awarded to the author of the best essay in competition for the above prize. Subject: "A Pathological and Clinical Study of the Thymus Gland and its Relations." Essays must be submitted on or before January 1, 1900. For particulars, address J. C. Wilson, M. D., chairman, 219 South Thirteenth street, Philadelphia. Pa.

DR. PAUL GELPI, of this city, is now studying in Berlin.

DR. GORDON KING will soon return to his post as senior resident surgeon at the Eye, Ear, Nose and Throat Hospital. He was recently elected a corresponding member of the French Society of Otology and Laryngology.

THE LOUISIANA STATE BOARD OF HEALTH has established temporary quarantine against the coast of Mississippi, which includes Hancock, Jackson and Harrison counties, owing to the appearance of yellow fever at McHenry, Miss., one of the infected points of last year, a small saw-mill town. The quarantine, we understand, will be enforced until all danger of infection is passed.

The first cases, seven in number, were reported on June 9. There have been, in all, up to time of going to press, twenty-three cases. There are now only three cases in existence, of which two are convalescing, and the type has been mild, no deaths having occurred.

Persons from the quarantined counties can enter the State of Louisiana only after disinfection and ten days' detention at Camp Fontainebleau or in any city north of the fever region, the nearest probably being Atlanta.

These preventive measures seem harsh to those of our people who would like to go back and forth between New Orleans and the gulf coast resorts, but they must be deemed wise on the part of our State Board until further developments can be ascertained.

THE NEW ORLEANS POLYCLINIC will begin its twelfth annual session on November 24, with an ante-Christmas course.

THE FIFTY-FIRST VOLUME OF THE JOURNAL begins with this number. We appear in a new dress, with emblematic purpose, and thus demonstrate our advance. On this occasion, and in the future, the pages of the JOURNAL will be increased in number and we hope to make the quality keep pace with the quantity.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

SCHLEICH ANESTHESIA.—Briegleb, according to an abstract in *Centrbl. für Chirurgie*, speaks in the most enthusiastic terms of Schleich's method of local anesthesia. He compares his discovery with that of Galileo and ranges it side by side with the three great deeds (Baas) of humanity, inhalation-anesthesia, blood saving, and antiseptis, making infiltration-anesthesia the fourth. The reviewer thinks such unreasoning praise is calculated rather to injure than to help Schleich's method. Briegleb intimates that hereafter, in case of a death under narcosis, the question will be, not whether all precautions have been taken, but rather whether narcosis was necessary, considering the satisfactory and safe results of the Schleich method.

ON COCAIN POISONING.—In the same number of *Centrbl.* the inaugural dissertation of Wiegand, Leipsig, 1897, is reviewed. All hitherto published cases of acute cocain poisoning are here collected. Two hundred and fifty cases are to be found in the table, twenty-one of which had a fatal termination. Of these seven took the drug internally, in two it was used in the rectum.

It seems most dangerous on the mucous membranes.

THE PRESENT STATUS OF THE SCHLEICH METHODS.—The third edition of Schleich's book (*Schmerzlose Operationen*) has been issued during the present year. This itself should be good evidence that Schleich's discoveries have maintained their interest since he first announced his investigations in 1894. Concerning local anesthesia by the Schleich method, from all quarters, from high and low in the profession, the voice is almost unanimous in praise of it, notwithstanding the fact that at first opinion was rather against Schleich, partly his own fault, as Tschmarke remarks in the *Centralblatt für Chirurgie*. Now, no

physician or surgeon can be excused from learning the technic of the method.

As to Schleich's method of general anesthesia, based upon the boiling point of the anesthetic mixture, there seems much reason to doubt whether really the dangers of general anesthesia can be materially lessened by these Schleich mixtures. It is significant, that nowhere in Germany, nor, indeed, in Europe, have any investigations, other than Schleich's, been published.

At all events, the case is markedly different as to the methods of general and local anesthesia devised by Schleich. The one is now accepted without reserve; the other, while not yet despised and rejected by the profession, can not be said to be in a fair way of anything like general adoption.

IRRITABILITY OF COLON A SYMPTOM OF APPENDICITIS.—George Erety Shoemaker, in the June issue of the *Annals of Surgery*, calls attention to irritability of the colon in its relations to appendicitis, he discusses the subject under two heads: first, the importance of it in the history of a case, where the diagnosis of some inflammatory abdominal trouble may be in doubt; and, second, the role of the appendix as a causative factor in chronic catarrhal intestinal conditions. As to the first, he maintains that, "whether a history of previous attacks of appendicitis can or can not be made out, if there is a history of chronic irritability of the colon, with frequent *mucous discharges*, the probability of the involvement of the appendix is enormously increased. Cases are cited in point.

Department of General Medicine.

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

THE USE OF GELATIN IN GENERAL HEMOSTASIS.—As a local hemostatic gelatin in solution is a reliable agent which has been of considerable service in practice since the original researches of Dastre and Carnot on the subject. But what about its use in general hemostasis?

Lancereaux (*Académie de Médecine*, June, 1897) reported a

case of aortic aneurism of paludal origin causing severe attacks of angina pectoris in which the use of gelatin injected subcutaneously has had remarkable effects. It is well to recall it here.

The aortic tumor had pushed itself through the costal cartilages and tissues until it had reached the skin proper, and on its surface soft and depressible ecchymotic spots could be seen. Pain was excruciating.

A subcutaneous injection of fifty cubic centimeters of a 1 per cent. solution of gelatin at 37 deg C. was made in the thigh.

Slight inflammation appeared around the spot of injection and the temperature rose to 38 deg. C. but the pain ceased.

Twelve injections of 150 grammes each at intervals of from two to five days were made and the tumor decreased in size, became firm; the pulsations of expansion which were so visible at first were even not felt upon palpation, there remaining only the normal beating of the aorta en masse. The uppermost manifestation of the treatment was the immediate and complete removal of pain. There existed then a feeling of so much improvement that the patient begged to be discharged and was allowed to leave the hospital.

This fact suggested the use of gelatin for persistent hemoptysis in cases of tuberculosis, and here is reported an interesting case in Auchard's wards:

Some time in November, 1897, a patient, 22 years old, was admitted in the service. Heredity was clear; father and mother were healthy; he was in good health since childhood until three months prior to his admission. At that time he was taken with a severe cold, dry cough and abundant hemoptysis, which lasted, unattended, said he, more than a week, when two days' treatment, with absolute rest, ergotin, subcutaneous injections, iced drinks, and dry cups in the back, stopped the hemorrhage. He returned to work, avoiding too much fatigue, taking creosote and cod-liver oil. His condition improved; he had no more dry cough and never had night sweats. One month later the dry cough recurred, and with it abundant hemoptysis. Ergotin failed, and he came to the hospital in the evening. Overnight he spat two spittoonfuls of blood. Ergotin and ipecacuanha stopped the hemorrhage for twenty-four hours. In the following forty-eight hours he had three abundant hemop-

tyses, each time filling at least two spittoons. Ergotin was discontinued; iced drinks with gallic acid were given. No betterment. Ligatures at the limbs and eight injections of morphin in succession failed to even diminish the hemorrhage. Each hemoptysis was announced by a spell of coughing, heat-waves rushing to the head and blood taste in the mouth. Patient was extremely weak.

The following plan was then laid down:

1. Ease the coughing spells during hemoptysis by mixtures of belladonna, aconite and morphin.

2. Coagulate the oozing blood by gelatin injected subcutaneously.

October 9. Subcutaneous injection in the abdominal region of one hundred cubic centimeters of a seven per thousand solution of gelatin, and that same day hemoptysis was reduced. During the night pain about the injection spot and temperature, normal up to that time rose, to 39.6 deg. C.

October 10. Injection spot inflamed and painful on pressure. Second injection of one hundred cubic centimeters. Before this was made there had been a light hemoptysis. In the evening another injection of one hundred *c. c.* Temperature, 39.4 deg. C. During night hemoptysis is lessened.

October 11, A. M. Temperature 38 deg. C. Great weakness. Injection of one hundred *c. c.* At 3 P. M. hemoptysis.

October 12, A. M. Injection of one hundred *c. c.* During night severe hemoptysis. Ergotin also injected.

October 13. Injection of ergotin and injection of gelatin. No hemoptysis.

Since that day treatment was discontinued. Hemoptysis has never recurred.

Though not absolutely convincing, this case shows positively that gelatin has some efficacy considering that all other measures had failed to stop hemoptysis. It is a fact that from the first gelatin injection hemoptysis was lessened in both frequency and abundance. True it is that ergotin was used concurrently, but alone ergotin had done nothing. It seems it acted as an auxiliary.

At any rate the report of this case justifies the use of gelatin in persistent hemorrhage, and it is hoped that new facts will corroborate the marked efficacy of gelatin obtained here.—*Gaz Hebdomadaire.*

Department of Obstetrics and Gynecology.

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

IN CLASSIFYING PRURITUS, Herman offers—(1) Adventitious, due to pediculi, dirt, worms, pessaries; (2) skin diseases, eczema, herpes, furuncle, follicular, urticarial and diabetic dermatitis, which had been shown to be due neither to saccharin urine nor to sweat: (3) irritating discharges, gonorrhoea, cancer, senile endometritis, and also cases where no visible discharge was seen; (4) venous congestion, due to heart, lung or liver disease; (5) nervous.

TREATMENT—In class one he advised white precipitate ointment for pediculi, absolute cleanliness and changing of material of pessary.

Class 2—Eczema usually affected elderly fat women, and those who were pregnant; possibly it depended on a parasitic micro-organism; in diabetes it was especially frequent. When due to organisms the treatment consisted of warm hip baths with liquor carbonis detergens added and powdering the parts with boric acid; in the latter general treatment was required.

Herpes Zoster was not amenable to any kind of treatment. Follicular pruritus was best treated by squeezing out the contents of the follicles and applying a germicidal lotion, such as corrosive sublimate, one to 2000. Urticaria was very rare.

Class 3—Irritating discharges should be treated by sedative and antiseptic washes to the vagina, followed by sedative powders to the vulva, such as a saturated solution of borax and boric acid. When these failed a strong carbolic acid lotion, one to seven, would in some cases completely cure or give greater relief.

Class 4—Pruritus was found in pregnancy and in corpulent persons with varicose veins, and those suffering from heart, lung or liver disease; the treatment was practically the same as in class three.

Class 5—Pruritus in aged women was sometimes a symptom of degenerative changes in the nervous system and treatment generally failed.—*British Medical Journal*.

THERE ARE THREE CARDINAL SYMPTOMS OF ECTOPIC GESTATION—pain, characteristic in nature, manner of occurrence and situation; irregularity of menstruation, often with discharge of what the patient calls “pieces of flesh” (decidua); and for the first two, three or four weeks a small swelling in the tube, no bigger than the end of one’s thumb and unadherent; later an exquisitely sensitive mass fixed in the pelvis by thick velvety adhesions.

The marked systemic symptoms do not necessarily indicate rupture of the sac and internal bleeding. In the majority of the operations not enough blood was found to account for the systemic symptoms, and often no bleeding at all until the vascular tissues are torn in enucleation and delivery.

The characteristic menstrual history of extra-uterine pregnancy is one of irregularity, and often not of cessation at all. In 27 per cent. there was no cessation of menstruation.

Prolonged uterine bleeding, preceded or followed by the discharge of decidua, is the almost universal rule at some period in the history of tubal pregnancy.—HIRST, *American Journal of Obstetrics*.

TWO CASES OF OOPHORECTOMY FOR CANCER OF THE BREAST are reported by Dr. Beatson, of the Glasgow Cancer Hospital, in one of which, two years after operation, there still existed apparent cure; in the other the improvement, though short-lived, was marked.

Mr. Stanley Boyd reports five cases with good, bad and indifferent results. Mr. Boyd had noticed spontaneous cures occur in two cases with the advent of the menopause.—*British Medical Journal*.

Department of Therapeutics.

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

PILOCARPIN IN PNEUMONIA.—Several years ago Dr. Waldstein, of New York, called attention to the treatment of pneumonia with pilocarpin. Lidmanowski recently reported eleven cases of pneumonia arrested by the second or third day, passing at once into convalescence, by immediate treatment with large

doses of pilocarpin; dose, 0.1 gram a day. He ascribes its favorable action to the energetic leucocytosis.—*The American Therapist*.

FOR PULMONARY EDEMA in children it is recommended to give one to three drops of the tincture of strophanthus every three hours. Diuresis is produced and the edema is quickly diminished.—*Medical News*.

THE TREATMENT OF SEROUS EXUDATIONS IN THE PLEURAL CAVITY BY THE SALICYLATE OF SODIUM.—In a recent issue of the *Archives Russes de Pathologie* Poliakoff insists very emphatically upon the utility of the salicylate of sodium in the treatment of pleural effusions. He has never seen disagreeable symptoms produced by the administration of the drug under these circumstances, and recommends that it be given in cachet, and immediately after ingestion of the cachet that the patient take a drink of some alkaline water. Should the dose of the salicylate seem to depress the heart, this may be avoided by the simultaneous use of a little caffeine. After the salicylate has been administered for three or four days its use is suspended for a day or two, and it is then renewed.

It would seem from Poliakoff's studies that the salicylate is particularly useful in chronic apyretic pleurisy. He records six cases in which this treatment was used. In five of these cases the salicylate produced results which were exceedingly satisfactory.—*The Therapeutic Gazette*.

EUCHININ IN MALARIA.—Dr. St. George Gray, writing from St. Lucia, West Indies, states (*British Medical Journal*, February 26) that he has found euchinin highly satisfactory in the treatment of suitable cases of malarial fevers. He has found, however, that it does produce cinchonism, notwithstanding published statement to the contrary, for he has seen it cause tinnitus aurium, deafness and derangement of vision and sensation in an even more marked degree than the same quantity of quinin itself.

Contrary to the statement of Professor von Noorden that 15 grains of quinin are equal to 25 or 30 grains of euchinin, Dr. Gray finds that euchinin is a more powerful anti-pyretic than quinin, and that, in malarial fever at least, 10 to 15 grains of euchinin are as efficacious as 20 to 25 or 30 grains of

quinin sulphate, and that it nearly always, in doses of 12 to 15 grains, causes buzzing in the ears, if not other symptoms of cinchonism. The largest dose that he has given has been 15 grains once or twice a day, always commencing with a good purge, which he considers essential in the treatment of all malarial fevers. This is sufficient in most cases, following the treatment with tonics and change of air if possible after the temperature has remained normal for a few days. Dr. Gray summarizes the conclusions reached by him as follows :

1. Euchinin is as effective as quinin in malarial fever.
2. It causes cinchonism.
3. It is tasteless, therefore easily administered; this is its great advantage over quinin.

The readiest form of administering euchinin is the simple powder placed dry on the tongue and washed down by a little water. As it is very bulky, some patients prefer it in cachets; but all solutions of euchinin that I have seen are decidedly bitter, presenting no advantage whatever over quinin.

[I do not consider cinchonism such a fatal objection as the intensely bitter taste of quinin. My experience with malarial fevers is that quinin and the malarial poison being antidotes to one another, cinchonism is a sign that a sufficient quantity has been taken to overcome its antagonist, the malarial poison, as mercurialism is the sign that the syphilitic poison is under control.]

If euchinin can be proved to be even nearly as effectual as quinin its reputed tastelessness alone should recommend it to many as a substitute notwithstanding that it is not altogether free from some of the other objections to quinin.—*The American Therapist*.

DR. TOUATRE'S BOOK ON YELLOW FEVER is attracting so much attention that we have solicited two reviews instead of one, and are glad to submit, on the following pages, the opinions of two eminent confrères, particularly fitted to speak with authority on that subject.

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.

Yellow Fever: Clinical Notes. By JUST TOUATRE, M. D. (Paris). Translated from the French (MSS.) by CHARLES CHASSAIGNAC, M. D. Published by the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, LIMITED, 1898. Price, \$2.50.

I.

The work before us was written by a New Orleans man, translated from the French manuscript by a New Orleans man, printed on a New Orleans printing press and published by a New Orleans company, the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL. But we are sure that while it will be, as it should be, appreciated also on this account, it will be welcomed especially on account of its intrinsic value as a contribution to the practical literature of yellow fever. Dr. Touatre, the author, is a man of vast experience with yellow fever. Beginning with the epidemic of 1866 and ending with the fever of 1897, a period of thirty-two years, Dr. Touatre's professional life has been closely identified with the history of yellow fever since the war. His large private clientèle and his association with the hospital of the French Society in New Orleans as physician-in-chief and his wide attainments as a physician entitle him to speak with some authority. Having treated some two thousand cases of yellow fever he has become familiar with all types and varieties of the disease. This is manifest in his book, and especially in Chapters III and IV, where are to be found some forty-six charts, exhibiting all forms of yellow fever, from the very mild, hardly recognizable as types of yellow fever in children, to the most grave forms of pure yellow fever and yellow fever complicated with secondary (streptococcal) infections. These two chapters alone are worth far more than the price of the book and invite the careful study of all who earnestly desire a better acquaintance with the clinical features of yellow fever.

The chapter on General Observations gives some good advice concerning the taking of notes at the bedside, especially important, as the diagnosis will often depend upon the clinical movement during the first seventy-two hours.

Chapter II discusses in an interesting and satisfactory manner the symptomatology of the disease.

In Chapter IV, on Yellow Fever in Children, the view is emphatically stated that they do have yellow fever and have it pretty much as adults

do, but generally in a milder form, with very few fatalities. This view, long combated by the elder Faget and other well-known physicians of the past, was demonstrated by the investigations of Dr. Chaillé's Havana Yellow Fever Commission, and is the one now adopted by the best authorities.

The chapter on Diagnosis is clearly and forcibly written and will, we doubt not, give valuable information to those not familiar with the disease.

Much stress is laid upon the lack of correlation of pulse and temperature, which is pronounced in all but the mildest cases. This observation, for the formulation of which he justly credits the elder Faget, is of the greatest value, since it is manifest, even in the first seventy-two hours of the disease, and often indicates with certainty the diagnosis, where the general symptomatology would be insufficient. Herein is it especially distinguished from dengué, a disease the most frequently confounded with it. We believe the author does not hold to the value of this sign with sufficient tenacity as to the milder cases, since these are the cases so likely to be confounded with dengué. Although in one place asserting that in the mild cases this correlation of pulse and temperature is well maintained at first, still, on page 130, he sets the matter pretty nearly right when he says "yellow typhus is characterized ninety times in a hundred by the fall in pulse-rate during the first seventy-two hours."

We believe the author in error in stating on page 11 and again on page 131 that albuminuria does not occur in mild cases. We observed in 1897 some *very* mild cases in which albumin was distinct, and we got to believing it was a valuable differentiating sign. When absent it means nothing, but its presence is strongly confirmatory of a suspicion of yellow fever.

The chapter on Prognosis gives the author's well-known views on the relation of virulence of epidemics to the time of appearance. While late appearing epidemics have always been mild, it can easily be shown that the early appearance of the disease by no means always means that the epidemic will be grave. If we had space we believe we could show that much of this formulation of law of epidemics is misleading, because founded on insufficient or actually erroneous statistical data. While the general statement may be correct that late appearing yellow fever will be mild, this was certainly misleading as to 1897, first because we firmly believe we had yellow fever in our midst at least a month before the first case was announced on September 6, and secondly because the absurd house quarantine (futile after the disease became established) actually prevented the report of cases, and we dare say even in some cases the proper return of the cause of death. Hence, our statistics for 1897 were vitiated and the laws derived from a study of previous epidemics can not be said to derive further confirmation from the fever of 1897.

The chapter on Treatment is sensible and entertainingly written, and will prove one of the most valuable parts of the book. We are in thorough accord with the author as to lack of value of drugs in yellow fever, and endorse most of what he says about the value of sponging, but we can not approve of the use of the bath containing twenty to fifty pounds of ice, even in the aggravated cases in which the author recommends it. Dr.

Choppin, in 1878, at Hotel Dieu, demonstrated the dangers of ice cold bathing on the Kibbee cot, which, in our recollection, killed nearly every patient, even Dr. Kibbee, the inventor, himself.

We do not believe many will endorse the views regarding the curative effects of abscess formation, and none, we venture to say, would be hardy enough to carry out the suggestion of Professor Fochier, of Lyons, commended for trial in desperate cases by Dr. Touatre to inject subcutaneously a few drops of turpentine for the purpose of producing large abscesses.

The discoveries of Sanarelli receive due consideration, and the belief is expressed that the germ found by Sanarelli in Montevideo, and Archinard in New Orleans, is really the germ of yellow fever, and that there is reasonable expectation that a curative serum will be discovered.

We will make only one unfavorable comment, which we offer merely in the way of a suggestion for the next edition, that the word "onset" should be substituted for "outset," invariably employed in the work.

In conclusion, we would say that the work of both author and translator has been admirably done, and the whole idea from its conception to the publication of the book is a credit to New Orleans energy and deserves the support of the profession of the South.

PARHAM.

II.

Since the JOURNAL announced in a late issue that a book on Yellow Fever, by Dr. Touatre, was in active preparation and would soon be issued by the press, the *cognoscenti* of the profession and those who are acquainted with the author's special aptitudes for this task have been on the alert in expectation of a valuable contribution on a timely subject. Now that the book is a reality, and that we have been favored with an early opportunity to peruse its contents, it is our privilege to inform the readers of the JOURNAL that Dr. Touatre has not only met the expectations of his friends, but has done full justice to his reputation as a genuine yellow fever expert, by contributing a monograph which is remarkable in its rare combination of originality, lucidity and practical worth.

To the professional public of New Orleans Dr. Touatre needs no introduction. He has been known here for thirty-three years as an unassuming but widely known and successful practitioner of medicine whose irreproachable career and unusual attainments have won for him a conspicuous place in the ranks of the profession. As to his special qualifications as an authority in yellow fever, the fact that he has resided in this community since 1865; that prior to his establishment in this city he had acquired experience in tropical diseases as a surgeon in the French navy; that he has been in active practice during the nine epidemics of yellow fever that have prevailed here during these thirty-three years; that for twenty years he has been the physician in chief to the hospital which provides for the wants of the French population of this city; that he has in that institution, and in his own private clientèle personally attended over *two thousand* cases of this disease—are credentials enough to satisfy any one of his right to be heard on this subject.

But Dr. Touatre's rights to a hearing are not based solely upon his unusually large experience. He has other claims besides the mere numerical strength of his observations, his broad culture and eminent capacity for fruitful observation. His is the merit of being one of the pioneer explorers of that dense jungle of contradictory opinions and facts which at one time constituted the pyretology of the tropics. The medical mind of the present generation can scarcely conceive the almost endless debates and controversies which marked each step in the gradual evolution of the knowledge that we now possess of the fevers that prevail in this section. It is only the old practitioners or those who are familiar with the medical history of Louisiana who can realize the difficulties which attended the proper classification of these fevers at a time when even a conspicuous symptom would suffice to create a new type; when fevers were classified without regard to causation; when even the specificity of yellow fever was denied; in fine, when the thermometer had not yet come into play as an aid in unraveling the clinical history of the few fundamental types of fever that are now alone recognized.

It is in this way that Dr. Touatre's career is distinctly connected with the history of clinical thermometry in Louisiana. He says: "Upon coming to New Orleans to practise medicine in 1865, I had a clinical thermometer in my baggage; I believe that I am one of the first physicians in the United States to have utilized this precious instrument in the diagnosis of fevers. I am sure I am the first in New Orleans to have used it for the study of the march of temperature in yellow fever during the epidemics of 1866, 1867, and the following ones. Hence, I was one of the first to note the divergence between the pulse and temperature in yellow fever. It is Dr. Faget who, with his observations and mine, built up the magnificent law which bears his name in all justice, as it is he who first caused it to be known to the medical public by his remarkable treatise '*Sur le type et la spécificité de la fièvre jaune, établis avec l'aide de la montre et du thermomètre.*' which is a masterpiece of originality, of science and judgment." We have been curious to discover if Dr. Touatre's early investigations had received proper recognition, and we are pleased to state that the late Dr. E. Seguin, of New York, who did more than any one else to popularize the use of the clinical thermometer in the United States, refers to the early careful observations of Touatre, Faget and D'Aquin. He also refers to the fact that Bennett Dowler had made use of the thermometer at the bedside as early as 1857. Dr. Joseph Jones did similar work at a later date, but the credit of establishing the specific thermic type of yellow fever is due to Faget, aided by the careful records of Touatre, and probably also of D'Aquin.

But it was not only in aiding to lay the foundation of what is now known as Faget's law that the profession is indebted to Dr. Touatre. He has also a right to historical recognition as one of the first physicians who had the sagacity to unravel the mystery of Creole immunity against yellow fever. When Dr. Touatre came here a deep rooted belief prevailed that native born children were exempt from yellow fever as a congenital right, acquired by virtue solely of their nativity in the infected zone.

Deléry was probably the only dissident among the French practitioners who all unanimously and tenaciously held to this doctrine.

Touatre's thermometric studies and careful observations soon convinced him that Deléry was right, and that the native born population owed its immunity not to congenital, climatic or topographical influences, but to the fact that they contracted a mild form of the disease in early childhood. Nevertheless, there were cases that occasionally presented themselves in the Creole population which bore such close resemblance to undisputed yellow fever that some account had to be taken of them. It was to this type of fever that Faget—who was the acknowledged apostle of the doctrine of congenital Creole immunity—erroneously applied the name of "Malarial Hematemetic Fever." The introduction of this spurious entity gave no end of trouble to local diagnosticians in the early or doubtful stages of yellow fever epidemics. It is to Dr. Touatre's credit that he was one of the first to recognize its counterfeit character.

Whatever the causes that have since contributed to demolish the myth of Creole immunity (the investigations of Drs. Chaillé, Guitèras and Reyes in Cuba and Key West, having influenced most powerfully in changing our views on the subject), it must be a satisfaction to Dr. Touatre to know that the views which he held in spite of much opposition thirty years ago have at last become the dominant and accepted teaching of the day.

Having said this much of the author's past labors, and which mark him a *connaisseur* on the subject on which he speaks, let us now turn to his present work and see how he has utilized his vast experience to enlighten us on more pressing questions.

To begin with, the reader of Dr. Touatre's clinical notes will soon discover that under this modest title the author has compressed, within a very narrow compass, a vast deal of information which constitutes a compendious and yet complete history of yellow fever as it is observed at the bedside. Incidentally he has introduced a good deal of matter which is of the greatest interest to the local sanitarian and epidemiologist. The book is strictly an original and personal production. It is the crystallization of oft repeated personal impressions which have become convictions, and as such are stated with a firmness and directness which at once impress the reader with the author's mastery of the subject. The book is not intended to be an elaborate treatise, bristling with bibliographic references or marks of erudition, to be merely looked over and shelved for future reference, but is a bedside guide, intended for the use of the busy practitioner who can read and appropriate its contents in the course of a few hours. It is largely composed of brief, pointed paragraphs, in which facts, opinions and recommendations are stated aphoristically and at times epigrammatically. Terse, short, well-minced sentences permit the reader to assimilate the text not only with ease, but positive relish, as the text is often flavored with a dash of salt that makes it the more palatable. *Delectando pariterque monendo* has evidently been the author's guiding motto, for at all times he is pleasing and instructive.

The book is divided into seven chapters, in addition to a cleverly written introduction. These chapters deal with general observations; symptoma-

tology; Faget's law, types and variations of yellow fever (including in this thirty-five charts and histories); yellow fever in children (eleven charts); diagnosis; prognosis, and treatment. The aim of the author throughout all this is to follow the reactions of the organism from the moment of the attack, during the violence of the struggle, when the issue between attack and defence is doubtful, and to the end of the conflict when either the organism is victorious or succumbs overwhelmed by antagonistic forces. As a clinician the author proves himself a worthy pupil of his great master Trousseau, who excelled in the analysis of symptoms and signs; who measured their significance and permanently fixed their value as they appeared on the face of diseases. It is impossible for Dr. Touatre, in the short space that he has allotted to himself, to paint pictures like a miniaturist, in which every stroke of the pencil is so fine and delicate that a magnifying glass is required to discover it; but he sketches admirably, and his clear-cut, correct outlined diagrams—without much attempt at shading—leave no doubt in the mind of the reader as to the identity of the type that he means to portray. To show the face of disease as it is seen normally without disfigurement, and then to teach the observer how to recognize its lines through the thick paint and varnish which is often heaped upon it by numerous accessory, accidental or complicating conditions appears to be his aim. According to the author, the key by which to read the cryptogram of yellow fever is Faget's law. By this we mean the progressive fall of the pulse, which is observed in the first three days, when the temperature is rising, showing the divergence between the pulse and temperature lines. It is not a slow pulse but a progressively falling pulse that constitutes the essential feature of Faget's law. On this point the author's explanations are more explicit and detailed than in any other treatise. He attaches to Faget's law all the value of a pathognomonic sign. Nevertheless, he is careful to repeat in discussing the diagnosis that it is not by means of one symptom, but by the collection of symptoms and their succession that a diagnosis should be made.

The chapter on yellow fever in children is very instructive. Here the author's large experience clearly proves that "age does not change the physiognomy of the disease, but only attenuates its virulence." He emphasizes the remarkable benignity of yellow fever in children; it is this peculiarity that has caused it so often to be mistaken for other fevers, not only in New Orleans, but throughout all countries where yellow fever prevails. In 1878 he treated 102 children, of whom only 2 died; in 1897 over two hundred had the disease, without a death. On this point he makes the following cheering, but we fear too optimistic statement: "According to my experience it (yellow fever) is certainly lighter than measles, and as far as I am concerned, I would prefer to treat one hundred cases of yellow fever in children than seventy-five of measles; I would certainly have a smaller mortality in yellow fever." There is no doubt great truth in his suggestion that disturbing and meddling treatment is responsible for many bad results in this as well as other classes of cases of this disease.

The progressive tendencies of the author are nowhere better displayed

than in the chapter on Diagnosis. He is profoundly impressed with the importance of Sanarelli's discovery and points with pride and satisfaction to the confirmatory evidences furnished in this city by Archinard, Pothier and others. He regards Archinard's demonstration of the agglutination reaction as applied to yellow fever as a fact of the greatest importance in establishing its early diagnosis for sanitary purposes in the beginning of epidemics. As a true clinician, however, he accords the serum reaction a secondary rank, next to the clinical history, the bacteriologic test being simply confirmatory of the clinical evidence.

Perhaps the most original, if not the most interesting, chapter is that on Prognosis. To this the author has devoted the greatest care and research and as a result presents his readers with several conclusions of the greatest importance to the clinician and sanitarian. The two great factors in prognosis are: (1) The genius of the epidemic—that is, the greater or less virulence of the germ; (2) the organic resistance of the patient. While attaching the greatest importance to individual factors which influence the resistance of the patient, viz.: alcoholism, excesses, bad habits, insufficient food, unsanitary lodgings, emotions, fright, excessive work and other hygienic errors, in determining the course and termination of the disease—he endeavors to account for the variability in the virulence and mortality of epidemics by the operation of two laws that he states as follows: "*First law*—All the great epidemics, as well as those of medium intensity which have ravaged New Orleans, have always begun in May, June or July, and have taken one to two and a half months of incubation, after the first case of the disease, before it became epidemic or claimed many victims. *Second law*—All epidemics beginning in August and September have been mild, have lacked virulence and have shown a light mortality." He arrives at these conclusions after a careful comparative study of the epidemics that have prevailed in New Orleans in the last thirty-three years.

We now reach the last chapter—"On Treatment." Here the reader expects to find that the author has turned his large experience to best account, and he will not be disappointed. To the prescription-monger; to those who treat by routine formulæ and copied instructions; to the men who are only interested in new, unknown and mysterious remedies, this chapter will no doubt prove disappointing. But the intelligent practitioner who adapts general principles to individual indications will recognize in the author a thoroughly safe guide. While there are no specifics in the treatment of yellow fever, there is yet a treatment to be applied which, if properly understood, will at least aid the organism in its tremendous struggle against this most formidable infection. The recommendations made by the author are grouped around two fundamental indications. These are (1) to strengthen and sustain the organism; (2) to consume, destroy and eliminate the toxin. The first and the most indispensable thing for success in the treatment of yellow fever is that it be begun just as soon as the disease has declared itself. It is during the first three days of the disease that the physician must act. After this the assistance that can be rendered to the patient is usually of a very negative character. The importance of hygienic treatment, absolute rest, proper

ventilation, and other sanitary requisites, are duly insisted upon. As to the initial treatment, the author lays stress upon the necessity of intestinal asepsis, which is to be secured by moderate doses of calomel; upon diaphoresis, which he favors by means of the old foot bath *à la créole*, giving minute instructions for its application. He is in favor of water, and plenty of it. He believes in alkaline drinks, and especially emphasizes his preference for Vichy, which quiets gastric distress and appeases the thirst in a manner that very few other drinks can. It acts as an antacid and when given liberally either by mouth or by rectum, acts as a diluent of the toxins and favors their elimination, not only by the kidneys, but by all other avenues. The author's emphatic preference for Vichy may be regarded by some as a special pleading attributable to his nationality. There is no doubt that other pleasant alkaline waters, the numerous lithiated waters of this country, for instance, will do as well. The essential point to remember is that an abundance of a pleasant, cool alkaline drink is to be supplied freely to yellow fever patients.

The symptomatic indications are dealt with very sensibly by the author. He does not give antithermics or medicines for the fever; he is a pronounced advocate of cold sponging to subdue persistent temperature, and describes the technic of the sponge bath, as he applies it in person. He is rigorous in his injunction that the patient must fast absolutely during the first three days, after which nutrient fluids may be cautiously given according to conditions. What *not* to do is almost as important in yellow fever as what to do. If only from this point of view the experienced reader will greatly profit by the perusal of this portion of the book.

Notwithstanding the unusual length of this review we find that we have done Dr. Touatre's book scant justice. In closing, we will summarize our impressions by stating that it is not a book which aims at surprises, sensational doctrines or adventurous and untried suggestions. Its greatest value lies in the fact that the results of a long, enlightened and profitable experience have been put into a thoroughly peptonized and assimilable form for the benefit of the young and inexperienced practitioner. While the book will prove interesting and instructive to all the medical men of this section, it is especially intended as a *vade mecum* for those who still have to reckon with their first encounter with the "Yellow Ogre,"—a mentor whose wise guidance will save the faithful reader from many hard knocks and bitter disappointments.

We feel that we can not close this notice of Dr. Touatre's book without reference to a painful paragraph in his preface. In this the author makes allusion to his age, and his approaching retirement; a hint that this, his first work published in the United States, will be his last. On the eve of his return to France, after thirty-three years of practice in New Orleans, he seeks neither "Gold nor Glory." "My only desire is, if possible, to leave to this country, which has been so hospitable to me, a useful book as a token of gratitude." This formal announcement of the author's intention to permanently give up his home in this city will produce a most painful impression among his numerous friends in and out of the profession. We

still hope that this determination is not final, but should it prove irrevocable we can safely assure Dr. Touatre that in this little book he has inscribed for himself a memorial which will perpetuate his name, in conspicuous characters, by the side of those of his compatriots who figure with honor and distinction in the medical history of Louisiana.

Much of the success of this book is due to the graceful and correct manner in which the original French text has been rendered into English by the painstaking translator, Dr. Chassaignac, who, in addition to the translation, has supervised the entire publication of the work. The text is remarkably free from gallicisms or typographic errors. In fact, the beauty of the letter press and general make-up of this book contributes not a little to its attractiveness and speaks well for the progress accomplished in the art of book-making in this city. MATAS.

An 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. Philadelphia: W. B. Saunders, 1898.

The purpose of this work is to include in one volume a thorough, accurate and modern treatise on several subjects which are generally considered in two or more volumes. The contributors have, in the main, been well selected and, except in a few instances, have done their work well. I prefer not to specify the exceptions, not knowing whether the insufficiencies are due to a limitation of space or to a failure to utilize it.

Some of the articles are remarkably good—for instance, that on diseases of the ureter, which is full, systematic, up-to-date, and followed by a comprehensive bibliography. Among the few contributors from the South is Dr. Isadore Dyer, whose article on leprosy, among others, is notable on account of its completeness, its modern views, and the number of its illustrations. The article on eczema, by Dr. Hardaway, also deserves special mention, mainly owing to its excellent classification and the attention given to the details of treatment.

A work of this kind must not only reflect the opinions and preferences of the respective authors, but must as well give account of all reasonable theories and treatment up to date. So believing, while I can forgive the scant mention of Bottini's operation for hypertrophy of the prostate, as the book was perhaps prepared before its recent revival, I must protest against the dismissal of the subject of electrolysis in the urethra by the mere statement that "electrolysis may be tried if all other means of penetrating the stricture fail."

All in all, the book is well written, convenient for reference, its typography and binding excellent, and is one of the best of Saunders' series of American text-books. C. C.

Veterinary Obstetrics. By W. H. DALRYMPLE, M. R. C. V. S. Wm. R. Jenkins, New York, 1898.

This is a compendium intended by the author for the use of veterinary students and practitioners. To the former it may be an aid in reviewing:

his studies, to the latter it can be useful as a book of reference. We can add another class who can secure useful information from the work: the country physician, practising in a region where a skilled veterinarian is not within call. He may at any time be glad to be able to give intelligent assistance to a valuable animal of his own or to one prized by a good client. It may be conducive to profit and enable one to follow the dictates of humanity.

The anatomy and physiology of the organs of generation are considered; then anomalies, diseases and accidents of pregnancy; dystokia from various causes, fetal and maternal, are studied; post-partum accidents and diseases are treated of; and even diseases in the young animal are briefly described, a summary of treatment included.

Most physicians would find the volume interesting—to many it could prove useful.

The paper and printing are good, the binding neat.

C. C.

Twentieth Century Practice, by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D. Vol. XIII, Infectious Diseases. New York: Wood & Co., 1897.

This volume is certainly a very instructive and interesting one. Commencing with the very elaborate and up-to-date article of Vaughn, of Ann Arbor, Mich., on ptomaines, toxins and leucomaines, we find successively a most practical treatise on infection and immunity by Harold C. Ernst, of Boston; then an article on water-borne diseases by Hart & Smith, of London; a very well illustrated article on small-pox by Moore, of Dublin; a very exhaustive article on vaccinia by P. Brouardel, of Paris, and, finally, a short article on mumps by Jules Comby, of Paris.

Not only is Vol. XIII of the *Twentieth Century Practice* indispensable to ordinary practitioners, but hygienists and pathologists will find herein a number of new facts which will be of benefit to them in their specialties.

The articles of Ernst and Hart & Smith have greatly interested us, and have put a new face on several subjects which, up to this time, we must confess had appeared to us rather obscure and improbable.

We heartily commend this volume to all our confrères in the profession.

P. E. A.

Diseases of the Stomach. By JOHN C. HEMMETER, M. B., M. D., Ph. D. P. Blakiston, Son & Co., Philadelphia, 1897.

Dr. Hemmeter's long study of diseases of the stomach, and his position as teacher, will necessarily enlist the interest of medical men in his book.

The work is a masterly presentation of the subject; the different points of interest are well brought out and elucidated. The book is in three divisions: part first, Anatomy and Physiology of the Digestive Organs, Methods and Technics of Diagnosis; part second, Therapy and Materia Medica of Stomach Diseases; and part third, the Gastric Clinic. The physiology of digestion is well treated. The treatment is well set forth;

and dietetics and the use of various waters carefully considered. The study of individual diseases show careful clinic observation and thorough knowledge of the literature on the subject. We think, however, the chapters devoted to the surgical treatment of organic gastric diseases should have been omitted in a work on clinic medicine.

The many original observations of Dr. Hemmeter are exceedingly valuable. Those upon the Histology and Physiology of the Gastric Glands, to which are added quotations and illustrations in colored plates, from Bensley's work, are of exceptional interest.

The book consists of 788 pages, and is printed on good paper and well illustrated. The medical profession of America should congratulate itself upon the appearance of this most estimable work, the first exhaustive work upon Diseases of the Stomach published in this country by an American author, and we strongly recommend the work as one which should be accessible to every practitioner of medicine. STORCK.

The Truth About Cigarettes. Paper read and discussed by the Medico-Legal Society of New York. Edited by CLARK BELL, LL. D., New York.

This brochure carries strong argument against the prevalent beliefs concerning the ills accompanying cigarette smoking, at the hands of able men, chemists, lawyers and physicians. The field is well covered and the position taken is as strong as it is iconoclastic. DYER.

The International Medical Annual and Practitioner's Index. Sixteenth Year. E. B. Treat & Company, New York, 1898.

This well-known work is up to the standard of previous years. It is to be regretted that of the thirty-five authors only six are Americans, as thereby American medical literature does not receive its proper representation. Books of the nature of this Annual are of incalculable value, especially to the busy practitioner, the present one being particularly rich in quotations from English medical literature. The different sections are in charge of men who are thoroughly versed in the branches reviewed. In fact, on every page something of interest is found. The work will well repay careful perusal by all who wish to keep abreast of the times. STORCK.

The Diseases of the Stomach. By WILLIAM W. VAN VALZAH, A. M., M. D., and J. DOUGLAS NISBET, A. B., M. D. Philadelphia, W. B. Saunders.

The reader is impressed immediately upon reading the introduction of this book that the authors are practical physicians; and while the work is intended as a working guide for the student and general practitioner, we have read it with the greatest pleasure and profit, finding much of value not contained in more pretentious works.

The classification followed is simple and practical. Methods of diagnosis are clearly and forcibly explained, while the most approved therapeutic measures, including the subject of dietetics together with the nutritive value of the various foods, are fully discussed. We heartily agree with the authors in not regarding erosions of the gastric mucosa as a distinct disease of the stomach.

The work is written in a scholarly style, and the typographic work in the book is good. Without pretending to be exhaustive, the work constitutes a useful and helpful contribution to medical literature. STORCK.

Illustrated Skin Diseases. An Atlas and Text-book, by WM. S. GOTTHIEL, M. D. Portfolios I, II, and III. E. B. Treat & Co., publishers, New York, 1898.

Dr. Gotthiel has succeeded in preparing a popular atlas with some very good colored plates and many excellent wood cuts, together with explanatory text arranged in text-book form. The parts already out are worth the price, \$1 each. DYER.

Text-Book of Medical Jurisprudence and Toxicology, by JOHN J. REESE, M. D. Fifth Edition. Revised by HENRY LEFFMANN, A. M., M. D. P. Blakiston, Son & Co., Philadelphia, 1898.

The fifth edition of this standard text-book has only expanded the detail of its good qualities. If any particular section deserves comment above others, we might mention those on the remuneration of experts, post-mortem examinations, feigned diseases and toxicology. The tests for poisons are unusually well presented, and in a practical manner.

We believe that too little is said in the chapter on unnatural crimes, for the average medical man is blindly oblivious to the existence of such evils as are common to sexual perversion. DYER.

PUBLICATIONS RECEIVED.

Hygiene and Sanitation, by Seneca Egbert, A. M., M. D.—Lea Brothers & Co., Philadelphia and New York, 1898.

Southern Surgical and Gynecological Association Transactions, Volume X, 1897.

Transactions of the American Pediatric Society, Volume IX, 1897.

Twentieth Century Practice of Medicine, edited by Thomas L. Stedman, M. D., Volume XIV—William Wood & Co., New York, 1898.

Diseases of the Larynx, by L. Grunewald, M. D.—W. B. Saunders, Philadelphia, 1898.

Legal Medicine, by E. Von Hofman, M. D.—W. B. Saunders, Philadelphia, 1898.

Catalogue Tulane University of Louisiana, 1897-98.

Diseases of the Kidneys and the Urinary Organs, by Prof. Paul Furbringer, M. D.; translated from the German, by W. H. Gilbert, M. D.—H. K. Lewis, London, 1898.

Notes on Massage, by Jessie M. Ward, M. D.—P. Blakiston, Son & Co., Philadelphia. 1898.

Inflammation of the Bladder and Urinary Fever, by C. Mansell Moullin, M. D.—P. Blakiston, Son & Co., Philadelphia, 1898.

Manual of General Pathology, by Walter Sidney Lazarus-Barlow, M. D.—P. Blakiston, Son & Co., Philadelphia, 1898.

REPRINTS.

Mutual Relations of the Railway Surgeon and the Neurologist, by J. T. Eskridge, M. D.

Injuries from "Live" Electric Light and Trolley Wires, by J. J. Bronson, M. D.

The Use of Quinin in Malarial Hemoglobinuria, by Albert Woldert, Ph. G., M. D.

Faulty Metabolism—Nutrition and Growth, by W. A. Walker, M. D.

Simple, Painless, and Perhaps New Method of Vaccination; Denudation Versus Scarification, by M. B. Hutchins, M. D.

Diet for Consumptives, by Reynold W. Wilcox, M. D.

The Surgery of the Gall-Bladder and its Ducts, by H. O. Walker, M. D.

Bi-Annual Report of the Board of Control for the Leper Home of the State of Louisiana, 1898.

Abdominal and Pelvic Surgery, by Wm. H. Wathen, M. D.

A Case of Partial Dislocation of the Occipito-Atlasoid Articular Articulation, by J. N. Hall, M. D., and H. N. Taylor, M. D.

Detection of Fetal Heart Murmur in Gravida with Report of a Case—Aortic Stenosis with Mitral Regurgitation—Displacement of the Heart in Lung Disease, by J. N. Hall, M. D.

Kryofine, by Eugene Back, M. D.

The Pharmacology and Therapeutics of Kryofine, by Geo. Frank Butler, M. D.

Neurotic Eczema, by L. Duncan Bulkley, M. D.

Hospitals and Sanatoria for Consumption Abroad, by Edward O. Otis, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR MAY, 1898.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	2	6	8
“ “ Intermittent			
“ “ Remittent	1	1	2
“ “ Congestive.....	3	3	6
“ “ Typho	2	5	7
“ Yellow			
“ Typhoid or Enteric.....	8	3	11
“ Puerperal			
Influenza.....			
Measles			
Diphtheria			
Whooping Cough	2	1	3
Apoplexy	18	4	22
Congestion of Brain.....	8	3	11
Meningitis	13	4	17
Pneumonia.....	19	12	31
Bronchitis	3	5	8
Cancer.....	10	9	19
Consumption.....	40	27	67
Bright's Disease (Nephritis)	21	16	37
Uremia		3	3
Diarrhea (Enteritis).....	27	15	42
Gastro-Enteritis	9	3	12
Dysentery.....	6	4	10
Hepatitis	5	2	7
Hepatic Cirrhosis	8	4	12
Peritonitis.....	3		3
Debility, General	4	1	5
“ Senile	15	6	21
“ Infantile	8	7	15
Heart, Diseases of	23	26	49
Tetanus, Idiopathic			
“ Traumatic	1	1	2
Trismus Nascentium.....		6	6
Injuries	4	4	8
Suicide	2	1	3
All Other Causes	135	51	186
TOTAL	400	233	633

Still-born Children—White, 27; colored, 10; total, 37.

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

Death Rate per 1000 per annum for month—White, 24.61; colored, 34.95; total, 27.62.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30 02
 Mean temperature..... 75-00
 Total precipitation..... .02 inches
 Prevailing direction of wind, south.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. LI.

AUGUST, 1898.

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 ETIOLOGY AND TREATMENT OF STUTTERING, STAMMERING AND OTHER SPEECH DEFECTS.*

BY W. SCHEPPEGRELL, A. M., M. D., VICE PRESIDENT WESTERN OPHTHALMOLOGIC AND OTO-LARYNGOLOGIC ASSOCIATION, NEW ORLEANS.

While the educational facilities of our institutes of learning are increasing from year to year, enabling children to improve their normal faculty of speech, and while institutions have been established for the education of deaf mutes, in which children bereft of this faculty are trained so as to become useful members of society, there is one class, and by no means a small one, to which but few advantages have been offered—I refer to children with defective speech.

In spite of the importance of the subject of speech defects and of the fact that several hundred thousand persons in the United States alone suffer from the more severe forms of speech defects such as stammering and stuttering, this subject has received comparatively but little attention at the hands of the medical profession, and is rarely referred to in our text-books. As was formerly the case also in diseases of the eye and ear, this class of unfortunates is usually left to the mercy of traveling quacks with some “newly discovered” secret remedy, who

*Read at the annual meeting of the Louisiana State Medical Society, May 12, 1898.

give transient relief by one of the many tricks which have been adopted in these cases, but which eventually leaves the patient a more confirmed stutterer.

Children suffering from speech defects rarely receive the sympathy of those around them, many considering their infirmity a "bad habit" or something within the patient's control. Instead, therefore, of using kindness, they are roughly treated and ridiculed, which, in the case of stammerers or stutterers, increases the morbid condition accompanying these affections, and thus aggravating whatever impediment exists. The child fears more and more the ridicule of others, thus increasing its embarrassment and markedly aggravating the impediment of speech.

As an indication of the influence of surroundings, it is well known that stammerers and stutterers speak more distinctly in the presence of their mothers. The child knows instinctively that the mother sympathizes with its affliction, and it therefore speaks with less embarrassment and in a more normal manner.

If a child has suffered at home from a defect of speech it is not until it is sent to school that it fully realizes the gravity of its affliction. Children are notoriously heartless in anything that may excite their ridicule, and the embarrassment or anger which this produces in the sufferer is one of the surest means of aggravating the defect. Even the teacher, either from ignorance or heartlessness, fails to sympathize with the child and sternly commands it to speak distinctly. The emotion of fear thus excited is another certain method of aggravating the defect.

A survey of the literature on the nomenclature of defective speech is very confusing, and every author has his own divisions and subdivisions of this subject, many of which are based on erroneous theories of the etiology of defective speech. Even in the more modern works the classifications are vague and unreliable.

All forms of speech defects may be conveniently grouped into two classes, PARALALIA AND DYSLALIA. The former refers to defective speech, such as lisping, rhinism, etc., and the latter to difficult or spasmodic speech such as stammering and stuttering. These do not include the various forms of ALALIA or absence of speech, due to whatsoever cause, whether psychic, paralytic or auditory. While this is a most interesting subject, it does not, however, come under the title of this communication.

I would state, however, that in some cases of apparent deafness in which there is still an element of hearing power, these cases should not be sent, as is usually the case, to institutes for the deaf and dumb in order to learn the various methods there in vogue, but should have the normal faculty of speech cultivated, the hearing being aided by means of a speaking trumpet or a special form of telephone in which the normal speech is so augmented as to be perceptible to the defective ear. These instruments are so used that the patient can see the facial movements of the speaker, which is an important adjunct in these cases. I have had a number of patients in which the value of this method was illustrated.

As already stated, the nomenclature of this subject is extremely confusing. *Paralalia*, which I have here used for defective speech in contradistinction to the various spasmodic forms, has also been used by some writers for stammering. It is here limited to those forms of speech defects in which there is defective or vicious pronunciation, as in lisping, tongue-tie, the burred *r*, the misplaced *h*, the substitution of *w* for *r*, *b* for *m*, etc. Many of these cases are due to local causes, such as hypertrophy of the pharyngeal or faucial tonsils, cleft palate, defects of certain muscles or of their action, or to shortness of the frenum of the tongue, which produces the well-known characteristic form of speech.

In marked contradistinction to *dyslalia*, the various forms of *paralalia* are not only not aggravated by apprehension or other psychic conditions, but the patient may even speak more distinctly under these circumstances.

Among the more common forms of *dyslalia* are the following:

Sigmatism, or the faulty pronunciation of the sounds *s*, *sh*, *z*, etc., or the so-called lisping, due to a faulty action of the tongue against the teeth. In these cases, the *th* sound is given for the *s*, or the reverse, the patient saying "thingular" for singular or "some-sing" for something. It is sometimes due to abnormality of the teeth and tongue, and also to affectation.

Lalling is the faulty pronunciation of certain consonants, giving them the *l* sound. It is commonly observed in very young children.

Lambdacism is an inability to pronounce the *l* sound, for which the *r* or *w* sounds are substituted. This form of defect

is common among the Japanese, in whose language the *l* sound is missing.

In *blaesitas* the soft consonants are hardened, and *vice versa*; thus *f, t, p* for *v, d, b*; *m, b* or *f* are substituted for *p, n* or *d* for *t, z* for *s*, etc.

Gammacism is due to a defective action of the dorsum of the tongue, so that the patient is unable to emit the *g* or *k* sounds for which *t* or *d* are substituted.

Iotacism is due to a similar defective action in which *j* or *g* (soft) and *ch* become *z* or *s*.

Rhinism is due to impeded or defective action of the velum palati, or to an obstructed condition of the nasal passage. It is the nasal twang so frequently observed.

Uraniscophnia (palatining) is a defective pronunciation of certain consonant sounds such as *k*, which before the vowels *a e i*, are sounded like *h*, and before *r* and *l* like *t*. It is due to a defect of the velum palati.

Rhotacism refers to the defective emission of the sound *r*, which is not found in some languages. Where inability to pronounce the *r* sound exists, the *l, g* or *w* sound is substituted. There are, moreover, two forms of the *r* sound, one being guttural and the other lingual. The former is due to the vibration of the uvula, the passage being constricted by the approximation of the back of the tongue to the soft palate; the latter by the vibration of the tip of the tongue against the hard palate. Where one sound is used for another it gives rise to a noticeable defect.

Besides the above enumerated defects there are many others found in individual cases. In a patient now under treatment and whom an instructor is now training, there is in addition to the usual form of sigmatism an inability to pronounce the *t* sound, which renders the speech almost unintelligible.

In many cases of paralalia some local defect exists which first requires careful treatment. The vocal organs should first be placed in their normal condition; enlarged tonsils or adenoid growths should be removed, a perforated or cleft palate corrected, and free nasal respiration established when this is defective. Elocutionary exercises should then be conducted by an experienced instructor, and in the majority of cases the results will be satisfactory. The patient should be carefully and

systematically trained in those particular sounds in which he is found defective. He should be made to read aloud or repeat the alphabet, this being at first accompanied by the voice of the instructor, who should guide him, as it were, to the correct sound. Exercise should be especially had on the various sounds which require most attention in the particular case, the sounds being repeated distinctly and carefully.

Prophylaxis is of the utmost importance in speech defects, and in this connection the silly method, so common to mothers, of teaching their children "baby talk" can not be too severely condemned. It should be remembered that where a child is taught, or even allowed, to make use of a vicious method of speech, it may become so accustomed to this that it will be quite difficult to eradicate, and may be the source of much embarrassment to the child as it grows older.

Each of the various forms of speech defects requires its special training, but the limits of this article will not allow me to go into details. As an example, however, I would state that in rhotacism, for instance, the patient should be exercised on a word in which there is but one *r* preceded by a *t*. The *d* is then substituted for the *r* and the patient exercises until by rapid pronunciation the lingual *r* is produced. Tremulous, for instance, should first be pronounced "td-emulous," and by rapid repetition the *td* sound becomes so connected by the rapid motion of the tongue and lips as to produce the sound necessary for the lingual *r*.

In lipping, attention should be given that the tongue be placed in the proper position. In the ordinary form the tongue should be withdrawn from between the teeth, and where there is inability to pronounce the sound *th* the patient should be directed to place the tongue slightly between the teeth.

The *s* sound is a very common stumbling block with children with defective speech. It is sometimes omitted entirely, so that the child will say "orry" for sorry, or it may substitute another sound, as "thorry." In a case recently sent me from Baton Rouge the child used the word "stitter" for sister. This child could pronounce the component parts—*sis* and *ter*—apparently without much difficulty, and by instructing the teacher to exercise the pupil in this way the child soon succeeded in giving the correct sound.

In cases of tongue-tie the original cause is the shortness of the frenum, although this is not present in as many cases as is usually supposed. A point not generally understood is that the tongue soon adjusts itself to the abnormal condition, so that the defect may persist after operative measures have been undertaken for its relief. In a case recently sent me by Dr. William Brickell, the patient had suffered from tongue-tie for eighteen years, but the family was, nevertheless, much surprised that correct speech did not at once follow the operation. Systematic exercise is necessary to overcome defects of speech, which may continue even after the primary cause has been removed.

Nasality of the voice, which is frequently met with, is due to the defective action of the soft palate, which allows the sounds to pass through the nasal chambers, giving them the *m*, *n* or *ng* sounds, those being formed by a current of air directed through the nostrils. It is sometimes due to paralysis following diphtheria. In a case of long standing, which I treated recently, and which was also due to diphtheritic paralysis, systematic exercise gave comparatively good results, the defect now being shown only when the patient is much fatigued.

Perforated ulcers of the velum palati affect the voice according to their size and location, small ulcers situated posteriorly having but little or no effect, as the opening is occluded by adjustment against the pharynx. In openings, however, situated near the hard palate, nasality is usually quite marked and can only be corrected by surgical intervention or the adjustment of an artificial obturator.

In some cases in which there is no special defect of the voice, there is absence of resonance, which depends upon the proper use of the soft palate. Where this is impeded in its action by adenoid growths, enlarged tonsils, or where nasal obstruction exists, these should first be remedied before elocutionary exercises are instituted. In a case referred to me recently by Dr. Jno. B. Elliott, the primary cause was a marked thickening of the septum, which caused defective nasal respiration.

In addition to the forms of paralalia already mentioned, cases are occasionally met with in which there is a complete perversion of speech, a so-called "pathologic language," which may be of such an aggravated form as to be entirely unintelligible to others not familiar with it. Warren¹ describes in detail two such

cases, in which the sounds were almost all formed by the lips and the back of the tongue, the only exception being *e* (long) and *a* (short), and the consonants *d*, *n* and *y*. There was almost complete absence of the *s*, *h*, *sh* and *lr* sounds. These children appeared to suffer from no defective function of the brain or hearing, and were of the usual intelligence of children of their ages. As an illustration of the defects in these cases one to eight was counted as follows: “*Wah, koo, kyee, paw, pah, kee-ya, ka-kee-ya, wa-ya.*”

Dyslalia, which includes stammering and stuttering, and which forms the most important part of this subject, is an intermittent functional disorder of speech, characterized by irregular spasmodic action of the muscles concerned in articulation, more rarely of phonation and respiration. As each case has its own individuality it is somewhat difficult to subdivide dyslalia into any special classes, as they merge one into the other. For convenience of study, however, the three subdivisions suggested by Potter² will be found useful: (1) spasmodic hesitation, (2) stuttering and (3) stammering.

1. Spasmodic hesitation is characterized by a slight choking sensation and impeded action of the respiratory apparatus. This is generally the earliest form in which the affection appears; and also that in which it often persists in cases of severe dyslalia which have been partially cured.

2. Stuttering is a clonic spasm of the articulating organs, characterized by repeated utterance of one sound, before the organs can pass to the combination of movements necessary for the production of the next. In this form the mute consonants *b*, *q*, *t*, *d*, *g*, *k*, the resonants *m*, *n*, the vibrative *r*, and also the initial sounds *w*, *h*, are those presenting the greatest difficulty.

3. Stammering is a more tonic spasm of the same organs, lasting for some seconds, the organs being as it were temporarily sealed together, and requiring a great effort to separate them in order to proceed to the utterance of the vowel part of the sound. If prolonged, the spasm may extend to the muscles of phonation and respiration, producing in severe cases almost tetanic rigidity thereof, requiring violent convulsive efforts to enunciate a single sound. This form affects the same sounds as the second form, and in rare cases even the vowel sounds themselves.

Many efforts to classify stammering and stuttering have been

made, but the results have not proved satisfactory. Even the classification which I have given is defective, but it is, nevertheless, the one which I have found the most convenient. Some efforts at classification have been made on the theory that stammering is a defect in the utterance of consonants rather than of vowels, while stuttering is a defect in the utterance of vowels rather than of consonants. In attempting, for instance, to utter a certain word, as "Paul," the stammerer will have difficulty in emitting the *p* sound, and, this being uttered, he easily adds the vowel to the consonant. The stutterer, on the other hand, wishing to pronounce the same word, has no difficulty in articulating the consonant *p*, but will repeat "p-p-p-p" many times before being able to add the vowel sound to it.

While this is true in the majority of cases, it is also well known that the stammerer frequently also has difficulty with words commencing with a vowel, and that the stutterer will go through the process of repetition when trying to pronounce a word beginning with a vowel, so that this division is not a clearly defined one.

The symptoms of dyslalia are so well known that they require no detailed description. There is a characteristic intentness in the speech of stammerers and stutterers even before any evidence of speech defect is exhibited. Before the first difficult word there is a slight hesitation followed by a condition of expectancy for the next difficult syllable, which the patient will make a mental effort to avoid. When the next difficult syllable presents, the spasm is increased, as also the expectancy, and the patient becomes excited, the mental expectancy increased, so that the spasms over the various difficult sounds become more violent—sometimes to such an extent that utterance is entirely lost. In some cases even the muscles of respiration take part in the spasmodic action, and occasionally the whole body shows the marks of the excitement and strain under which the patient is laboring.

In most cases of dyslalia the respiration is defective. The stutterer may not begin to speak until all the air has been expired from his lungs, or he may so load his lungs as to make speech emission difficult. The patient may even speak during inspiration instead of expiration. In the majority of cases of dyslalia, however, whispered speech and the singing voice are

unaffected. The former has been explained by the fact that in whispering speech the vocal cords are not brought into apposition. The absence of the defect in the singing voice has received various explanations, but is probably due partly to the rhythm of the voice and partly to the prolongation of the vowel sounds and to the curtailing of the consonants, and probably also to the fact that the tension of the vocal cords differs from that in ordinary speech.

The bibliography of speech defects dates as far back as ancient history. Stammering and stuttering are referred to in the Old Testament, and it is not improbable that Moses suffered from some defect of this kind. The stammering of Demosthenes is well known, and Hippocrates, Aristotle and Galen each refer to this subject. Hippocrates ascribes stammering to a form of diarrhea, Aristotle to a defect of the tongue, and Galen to moisture of the brain and muscular debility from cold. Louis II and Louis XIII, of France, were both stammerers to a marked degree.

The statistics of persons suffering from dyslalia are not complete, and no systematic report of this subject has been made in the United States. In France, the proportion is placed by Colombat and Chervin at three to five, respectively, per 1000, while Otto places the proportion in Germany at two per 1000. From an average of these figures, the number of stammerers and stutterers in the United States must be about 227,500, and in New Orleans alone, about 1000.

A curious circumstance connected with this subject is the fact that girls suffer less from the more serious forms of speech defects than boys. Some authors have even doubted the existence of female stutterers, and Cöen, of Vienna, who has had a large experience in this direction, places the number at only $1\frac{1}{2}$ per cent. of the whole number affected. Wyneken, Hunt and Klencke, however, report a much larger proportion, giving $12\frac{1}{4}$, $12\frac{1}{2}$, and 34.4 per cent. respectively, of the whole number.

In a report made by Winckler³, of Bremen, from an examination of the children of the public schools of Bremen, 197 boys stuttered and 86 stammered, of a total of 12,087, while of 11,575 girls, 62 stuttered and 72 stammered. An interesting case is reported by Graves, of Dublin, in which all the male members of a family for three generations were stutterers, while not one of the females suffered from any form of speech defect.

Many reasons have been assigned for this discrepancy between the sexes, none, however, being satisfactory. Potter believes it to be due to the fact that girls are usually under the maternal influence, and that the mother's sympathy has a prophylactic effect in these cases.

In order to understand fully the defective mechanism of the dyslalia, and also to arrive at a satisfactory and scientific method of treating these cases, it is important that we should understand the fundamental principles concerned in the formation of articulate speech. Speech is a combination of articulate sounds by means of which ideas are conveyed from one person to another. The investigations of Kemplen, Willis, Helmholtz, Bell, and others, have shown that each vowel or consonant sound, or other sound formed by the combination of these, has a definite mode of origin and of enunciation, and it is on this principle that the methods of teaching the deaf and dumb have originated. Samuel Heinicke, of Germany, and Van Praag, of England, have labored earnestly in this field, and the oral method of teaching the deaf and dumb is now an established one. It is rarely the case that deaf mutes are without the essential faculty of speech; it is simply undeveloped, as they have never heard the sounds to guide them in their utterance. They are, therefore, taught to hear and to speak through the eyes, as it were, and, while the results do not compare favorably with the normal speech, it nevertheless enables them to communicate with the world in general.

Phonation is the mere emission of sound, and where the voice organs exist, it is common to all mankind, even in deaf mutes, and is present in animals. In articulation, however, the sounds are changed into elements of speech. This process is a very complicated one, and brings into play many muscles and cavities. The fundamental sounds originate from the larynx, and it was formerly thought that speaking without this was an impossibility. J. Solis-Cohen⁴, however, has demonstrated its feasibility. In a case in which the larynx had been extirpated for malignant disease, the patient learned to speak intelligibly, the pharyngeal cavity taking the place of the larynx.

In the production of co-ordinate speech a large number of muscles take part, and these must be so controlled by the nerve

centres that they will all work in harmony. Normal speech can not exist except under these conditions. In the production of sound the air from the lungs strikes against the vocal cords, which are approximated in this process and which are set in vibration, the sound thus produced being reinforced by the cavities above. The movements of the vocal cords are regulated by certain muscles, both intrinsic and extrinsic, which perform an important function in voice production. The sounds are changed not only by the distance between the cords, but also by the variation of the tension of the cords themselves. The sounds thus produced are modified by the vocal apparatus above, as the tongue, lips, velum palati and teeth, as well as by the vestibule and ventricles of the larynx, epiglottis, pharynx and oral and nasal cavities; even the accessory sinuses are supposed to act as resonant chambers in this process.

In the sounds thus produced there are three important distinctions, viz. : pitch, quality and intensity. Intensity is due to the amplitude of the sound-waves, and influences the distance at which a sound may be heard. Pitch refers to the number of vibrations per second; while quality is the character of this tone independent of pitch or intensity, and is due to the number and character of the overtones which accompany the fundamental note. Thus the human voice and the violin may each give a note of the same intensity and pitch, the difference being in quality.

Sounds in general may be divided into two classes, vowels and consonants. The former are primarily formed in the larynx, the character being modified by the variation and size of the oral cavity. Consonants are more complicated in character and depend upon the changes and interruptions in the currents of air in the respiratory passages above the larynx. These have been divided into explosives, labials, dentals, gutturals and aspirates, according to the method and location of their phonation.

Few persons realize the difficulty present in children in their first effort to articulate speech. The first "Mama" of the child, which so delights the mother's heart, is usually the result of weeks of unsuccessful attempts on a word which is exceedingly simple in all languages. When we take a more complex sound the difficulty is greatly augmented. In the word "black," for

instance, the *b* sound is made by first closing the lips while the breath is being vocalized in the glottis. The mouth then opens and the tip of the tongue is raised to the upper gum in such a manner as to allow free egress of the voice on both sides of the organ for the *l* sound. The tongue is then adjusted for the *a* sound, and the back of the tongue must be raised against the soft palate and lowered with an expulsion of the breath to complete the word. In the meanwhile the glottis must be retained in the proper position. The analysis of the formation of such words will give a comprehension of the difficulty that is met with in teaching children with defective speech, and more especially also in the teaching of the vocal method to deaf mutes.

Many articles have been written on the etiology and treatment of dyslalia, but it is only recently that anything like precision has been reached, and even now there is no unanimity of opinion on this subject. Of all forms of speech defects this is the most serious and the most difficult to eradicate. An analysis of the various treatises which have been published on this subject shows that the many theories may be classified as follows:

1. That the defect is due entirely to local causes, such as the tongue, palate, tonsils, epiglottis, etc., or a combination of these. The treatment suggested by this etiology naturally refers to surgical methods and mechanical contrivances.

2. That there is a defective power of co-ordination, the treatment, therefore, referring to respiratory and elocutionary exercises. Some also attribute it to a special neurosis and others to defective will power.

A lack of harmony between the various acts required for articulating speech is believed by Chervin⁵ to be the principal cause. The respiratory rhythm of speech requires three periods of unequal duration, nevertheless sharply defined—inspiration, rest and expiration. As soon as the rhythm suffers in its regularity, phonation is disturbed, and Chervin believes this to be the prime factor in the spasmodic forms of speech defects. Many writers have ascribed the cause of dyslalia to a defect of muscular action, and many forms of treatment, such as galvanization of the tongue, etc., have been based on this erroneous theory.

In the absence of similar defective action in other voluntary movements, Potter ascribes the cause in all cases to a spasm,

which may be present in a more or less degree and which may be located in different parts of the vocal organs, as at the lips, point of the tongue, back of the tongue, in the larynx, or at all of these points, each of which gives rise to a different form of dyslalia.

While a spasm of the various parts of the speech mechanism is associated with the phenomena observed, the real cause is more deeply seated and is evidently a functional disturbance of the speech centres. Many of the conditions observed are simply reflex disturbances, or play the role of accessory causes.

While the underlying cause of stammering and stuttering is centrally located, local conditions are sometimes important accessory causes. Enlarged tonsils, adenoid growths, nasal obstructions, cleft palate, etc., render speech more difficult and therefore make the child more predisposed to these disturbances, and the correction more difficult. These local conditions alone, however, can not develop stammering, as certain physiologic and psychologic conditions are necessary in addition.

Constitutional disturbances, such as a scrofulous or nervous diathesis, sometimes play an important role in the development or continuance of these cases, and should be given careful attention.

Children suffering from dyslalia should be treated with the greatest kindness and consideration, as fear, anger, etc., have the effect of aggravating the disorder. Canon Kingsley, who was himself a stutterer, states that "anything like fear of bodily punishment or even capriciousness in the teacher's temper and rules, will surely confirm the bad habit; if he is by any means kept in a state of terror, shame or even anxiety, then the stammerer will grow worse and worse as he grows older."

Much has been written as to the moral nature of stammerers, but this probably differs in no way from that of other individuals. Their defect, which makes them conspicuous, naturally has the effect of giving them a retiring and even morbid character, but otherwise they compare favorably with persons not so afflicted.

In regard to the etiology of dyslalia, Hunt⁶ reports as follows: Inheritance, 15 per cent.; involuntary imitation, 9 per cent.; voluntary imitation, 4 per cent.; convalescence after illness, 7½ per cent.; fright or ill usage, 9 per cent.; unaccounted

for, 49½ per cent. As imitation is undoubtedly a strong factor in the so-called inherited cases, we may place the various forms of imitation at 28 per cent.

As imitation is the process by which a child acquires the use of speech, it is readily understood how easily defective speech may be acquired in this way. Not only do evil results follow involuntary imitation, but also voluntary. A young man of this city, who repeatedly took the part of a stammerer in small dramas at school, developed a hesitancy in his speech as the result of this practice.

All forms of mental disturbances aggravate the difficulty of speech of the stammerer or stutterer. This may be timidity, shyness, mistrust, fear of ridicule, eagerness, impatience, anger, etc. Mental expectancy is a prominent factor in dyslalia. When the attention is directed to the action of muscular movements, which have become more or less automatic, this results in a degree of inaccuracy of such movements, and if to this the influence of fear be added the irregularity becomes more marked. This nervous anticipation is quite sufficient for the development of a vocal spasm at each difficult sound, thus aggravating the defect.

The records of cure of the various forms of dyslalia differ considerably. Robt. M. Zug reports that of 150 cases treated only 15 were radically cured, while Klencke in fifteen years treated 148 cases with but one failure. Coën, of Vienna, in his earlier reports gives 40 cures, 20 improvements and seven failures in 67 cases. Chervin reports 48 cures out of 52 cases, the four failures being due to the non-application of the necessary exercises. Gutzmann⁷ states that of 230 patients treated by his method, 80 per cent. were cured.

The common impression that a child will outgrow stammering or stuttering is a grave mistake, and may be productive of disastrous results. On the contrary, many cases are aggravated as they grow older, as the nervous apprehension is increased. The best results are obtained in the earlier stages, and parents, teachers and physicians should be warned to look out for the first spasm in the voice of the child under their charge.

Prophylaxis is important in this as in other conditions, and children should not be allowed to associate with stammerers. Although it may appear a hardship, stammerers should not be

allowed to mingle with the children of our schools, not only on account of the fact that the other children may be influenced by their defect, but also on their own account, as the association at school usually tends to aggravate the defect. These unfortunates should first be carefully treated until the defect has been eradicated. Even in adults, the prognosis is sometimes very good, as they realize more fully their disadvantage and follow the exercises prescribed for them more persistently. Where stammering and stuttering develop late in life it is usually suggestive of brain disease.

The time of treatment varies according to the capacity of the pupil, length of time since the habit was acquired, the age, disposition, etc. Three to six months is the time usually required, but even after the expiration of treatment, the patient should be kept under observation for a year or two longer to avoid the possibility of a relapse. If the theories of the cause and origin of stammering and stuttering have been numerous, the treatments suggested have been much more so, and the enumeration of these alone would occupy considerable space. Without referring to the many tricks used by quacks, every advocate of a special theory has a remedy based on his theory. One of the earliest methods advocated was by Demosthenes, who was supposed to have held pebbles in his mouth to correct a defect of speech. Collateral history, however, shows that he was in the habit of practising before a mirror for many hours daily, so that this was probably only an incident in his real treatment.

In spite of the fact that so many suffer from the more severe forms of speech defects, there are comparatively few opportunities of scientific treatment in the United States for these unfortunates. Periodically, we have a visit from some quack with a "newly discovered" remedy, to whom these fall easy victims, being left unbenefited and still more depressed in spirits.

In no other condition is prophylaxis so important as in dyslalia. When the child first exhibits any impediment of speech, and shows signs of irregular breathing and rapid speaking suggestive of this condition, immediate attention may save much suffering. The child should be taught to speak slowly and distinctly and to repeat sentences. This should be done without ridicule, impatience or anger; in fact, as little attention as pos-

sible should be directed to the defect, as any embarrassment or excitement on the part of the patient invariably tends to aggravate the disorder. For this reason the child should be removed from school; partly to avoid the influence of other children, whose attention and ridicule would tend to aggravate the defect, and also to avoid the influence of imitation on the children not so affected.

Childhood is undoubtedly the best period for the treatment of dyslalia. Where the defect is allowed to advance beyond this period, Potter² suggests that treatment be postponed until adult age, in order to gain the advantage of steadier purpose, appreciation of the affliction, and the greater force of the patient's will. The longer, however, this habit is established, the more difficult it is to eradicate, and my rule has always been to advise treatment without delay.

The mechanical contrivances which have been advocated for defective speech are large in number, all having the same object, viz. : the diverting of the patient's attention from the mechanism of speech. Among those which have been used may be mentioned the following: the movement of the finger or foot at every syllable spoken, jingling a watch chain, wearing a lead ball around the neck, speaking with a bullet or button in the mouth, tongue plates, drawling, singing or whistling speech, affected methods of speaking, such as adding the *e* sound to a consonant, etc. The secret method of Gates, which at one time attracted considerable attention, consisted of raising the tip of the tongue to the palate and holding it in this position while speaking. This secret was bought by the Belgian and Prussian governments, where chairs for this study were established.

All of these methods are of but transient value, for as soon as the patient becomes familiar with them, the execution becomes mechanical and their value disappears. In some cases, however, mechanical methods may be of accessory value in the earliest stages of treatment, in order to encourage the patient in his efforts.

The preparatory treatment consists in placing the respiratory organs in the best possible condition, remedying any hypertrophied pharyngeal or faucial tonsils, nasal obstructions, etc., whose influence would tend to make the art of speech more difficult. The constitution of the patient should also be put in the

best possible condition by exercise in the open air, diet, tonics, etc. Electricity by means of central galvanization is also a useful adjunct in these cases. Its local use on the theory that there is defective muscular action is unscientific and uncalled for.

When this treatment, where indicated, has been completed, disciplinary exercise of the respiratory, vocal and articulating organs should then be instituted. These should be exercised in the most persistent and systematic manner until the various sounds which form the stumbling block of the sufferer may be uttered without difficulty. When the first improvement has taken place the confidence of the patient increases, which will lessen the nervous apprehension and increase the will-power, this being of the most importance in the treatment of these cases.

The exercises should be varied and regulated according to the peculiar character of the case under treatment. The essential principle, however, is the same. The patient should practise two or three hours daily, and it has been found preferable that while the patient is under treatment he should be removed from his associates, so that he may not have the opportunity of exercising his defective speech.

The first step in this method of treatment is the regulation of the respiration. The irregularity of the breathing of stammerers and stutterers is well known. They will sometimes speak when all the air has been expired from the lungs, and even during the respiratory act. The respiration should, therefore, be exercised in the most careful manner, and this according to a regular system. I find it advantageous to give the instructor a table indicating the method by which this is done. The combination of the various vowels is used in this connection, a vowel being articulated with the first breath expired. This plan of treatment is kept up for at least two weeks, until the patient is able to breathe regularly during phonation and to emit each one of the vowel sounds.

The voice should then be exercised on the combination of vowels and consonants, at first commencing with a vowel and ending with a consonant. When this has been accomplished the exercise should commence with the consonants, taking them in the following order: labials, labio-dentals, nasals, linguals, dento-linguals, palato-linguals and gutturo-linguals. For this purpose I also give the instructor a table with the consonants to

be exercised, with specific directions for their use. These should be persevered in until the patient is able to pronounce the defective sounds without fear or embarrassment.

The exercise then becomes more general, the pupil reading aloud with the instructor, who thus suggests the pronunciation of each sound and renders it easier for the pupil to follow.

While the principle of the treatment in these cases is not difficult, it requires great discretion, judgment, tact, patience and perseverance on the part of the instructor. He should gain the confidence of the pupil and study his peculiar defect and the various causes which tend to develop it.

The different forms of speech defects are so great that every case becomes a rule to itself and requires special instruction and training. In many cases of dyslalia the diaphragmatic training is of use. The patient is instructed to breathe strongly with the diaphragm. When this method is first taught the patient is placed in the horizontal position and the hand of the instructor placed over the abdomen of the patient to note the regular rise and fall in respiration. When the lungs are thus well filled, the patient is directed to speak, the result sometimes being marked.

The diverting of the patient's attention by this form of respiration has the same effect as the mechanical methods already described, and if this were the only result it would be but transient in value. As has been stated, however, the control of respiration is important in these cases, and it is, therefore, a useful method.

The special instructions required in each case are so numerous that they can be but casually referred to within the limits of this article. Each case requires special instruction. Where difficulty exists in the pronunciation of the sound *w*, Behnke suggests to substitute the *oo* sound, as "oo-as" instead of was, and "oo-ater" instead of water. In the same manner he substitutes *ee* for *y*, as "ee-oung" for young, and "ee-ooniverse" for universe.

A useful drill for patients, with a view of strengthening the muscles of the tongue and lips, is to speak slowly and distinctly with the front teeth lapping and the molars held firmly together. The exertion required to speak in this manner will increase the muscular action of the tongue and lips, which is of great use in these cases.

In view of the fact that stammerers can sing without difficulty, this being due, as has already been stated, to the longer dwelling of the voice on the vowel sounds, it has been suggested that stammerers should exaggerate the vowel sounds at the expense of the consonants. The fact that stammerers have no difficulty in whispering, in which the glottis is open, has also been utilized in instruction, the patient being directed to substitute the glide of the glottis for its normal closure in speaking; that is, pronouncing the initial consonant as a whispered sound.

These are but a few of the auxiliary methods required in the treatment of these cases. While many of these patients require all the skill, patience and perseverance of the instructor, the majority can be cured of this defect, which frequently makes their life a burden. In those cases in which a cure does not follow, the improvement is usually so pronounced as to give relief to both the sufferer and his friends.

My object in presenting this paper is to bring the subject more prominently before the medical profession of Louisiana. There are many thousands suffering from speech defects in this State, comparatively few of whom have had any opportunities for treatment, and the majority of whom consider themselves hopelessly afflicted. Few will dispute the importance of this subject, and I trust that the time is not far distant when it will receive the attention which it so much deserves.

The same government which spends hundreds of thousands for its asylums and public schools should give at least some attention to this large class of unfortunates. The blind and the deaf and dumb receive sympathy and commiseration wherever they go, but the stammerer or stutterer has but to utter a sound and he at once becomes the butt of ridicule of those around him, thus tending to develop a morbid and a retiring and sullen disposition.

I do not hesitate to say, therefore, that this suffering on the whole is greater than of those more severely afflicted. Were these cases hopeless and beyond the reach of proper training, there might be some excuse for this condition of affairs, but it has been shown in Vienna, in Berlin, in Paris, in London, and elsewhere, that proper training is productive of excellent results in these cases. I therefore sincerely trust that the era of

progress, which has been predicted in the near future, will not forget the demands of this class of sufferers.

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ON THE FREQUENCY OF CRYPTORCHISM AND ITS RESULTS.

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Cryptorchism and incomplete descent of the testicle are congenital defects, the frequency of which has never been established by reliable and extensive statistics. Undescended testicle, partial and complete, is frequently seen in infants and children, but becomes more rare with the development of the body to manhood. The writer has recently had an opportunity to make an accurate investigation into this subject by the examination of 9815 recruits for the volunteer service at Camp Tanner, Springfield, Ill. The ages of the men varied from sixteen to fifty-one. The following is the result of the examination with reference to incomplete descent of the testicle:

Cryptorchism—Right side, 12; left side, 22; both sides, 1.

Incomplete Descent of Testicle—Right side, 10; with hernia, 2; left side, 14.

Total number of incomplete descent of the testicle in 9815 men, 59.

It will be seen from the figures presented that this congenital abnormality occurs more frequently on the left than on the right side. Out of fifty-eight cases of unilateral incomplete descent the left side was affected thirty-six times, the right twenty-two. Out of fifty-four cases the defect was bilateral only once. In this case the inguinal canals were found completely obliterated.

No trace of the testicles could be found. The man was in excellent health, married, and father of several children. In only two instances was the incomplete descent of the organ complicated by a small hernia, in both cases on the right side. Both of these men were rejected. In all cases in which the testicle could be palpated the organ was found atrophic, seldom exceeding the size of a filbert or pigeon's egg, soft and not tender to touch.

The testicle was most frequently found just within or below the external inguinal ring; in the latter location it could be freely moved in all directions without causing any pain. None of the men thus afflicted complained of pain or even discomfort caused by the imperfectly developed and incompletely descended testicle. Recent scientific investigations appear to establish the fact that cryptorchism and incomplete descent of the testicle are attributable rather to an imperfect development of the organ than to a failure to reach its normal destination at the right time.

The results of these researches as well as the deductions to be drawn from the statistical material utilized in this paper seem to combine in teaching surgeons caution in undertaking early operations for cryptorchism for the purpose of transplanting the organ into its normal location and with a view of maintaining or increasing its functional activity. The congenital hernia which so constantly attends retarded descent of the testicle frequently disappears in the course of time without operation or truss pressure.

AROMATIC TOXINS.

BY JOHN C. MCKOWEN, M. D., NEW ORLEANS.

[CONTINUED FROM JUNE AND JULY NUMBERS.]

As side lights on the course of aromatic toxin poisoning, the manner of its production and to prove its effect on the nervous system, I quote the following three short articles from the *British Medical Journal* of March 20, 1897, page 719:

1. "Dr. Rolleston brought a woman, aged 57, who had suffered dropsy, jaundice and progressive shortness of breath. On admission she had a dilated heart, slight edema and a dirty yellow skin. There were purpuric patches on thorax and

abdomen, urine was highly colored, but contained no bile, nor was there any albumin. On the evenings of November 2, 7 and 9, three 20-grain doses of trional were given. On November 9, the urine was of a deep orange color, and as the possibility of hematoporphyrinuria due to trional suggested itself, the administration of the drug was stopped. Dr. Buckmaster examined the urine spectroscopically, and found no trace of hematoporphyrin, while urobilin was present in excess, as shown by the fact that, after dilution, a well-marked band of urobilin was seen. The urine remained of this peculiar color, though gradually diminishing in tint until death, on November 17. On November 13, the temperature began to go up and delirium set in, which lasted until death, from exhaustion. At the necropsy there was a localized empyema between the lobes of the right lung, a dilated heart and a 'nutmeg' liver, which was not cirrhotic. It appeared probable that the patient had for some time been subject to urobilin jaundice, the source for excessive urobilin being the purpuric patches and the 'nutmeg' liver, and that the trional brought about an increase in the urobilinuria.

"Urobilin and hematoporphyrin were closely allied, while sulphonal and trional resembled each other, both chemically and physiologically. Sulphonal was known to give rise to hematoporphyrinuria. It seemed reasonable to believe that trional would give rise to excessive urobilinuria and that it would be specially liable to do so when there was excessive chronic venous congestion of the liver.

"Dr. A. E. Garrod said that hæmatoporphyrinuria (which was present to a slight extent in all healthy persons) did not, when excessive in amount, necessarily imply abnormal hemolysis, but a perversion of ordinary hemolysis. Urobilin probably had quite another origin, and could be produced in the laboratory by the action of the micro-organisms of the intestines on bile pigment. The administration of opium would occasionally produce it, perhaps in consequence of the lengthened stay of the intestinal contents in the bowels which opium caused."

Dr. Rolleston wrongly attributes the urobilin in urine to purpuric patches and nutmeggy liver, instead of attributing the purpuric patches and jaundice to aromatic toxins; he rightly calls it urobilin jaundice, and this is the first and only time I

have ever seen jaundice attributed to urobilin by any one but myself. This woman had clearly heart disease, to which we can attribute the dropsy, the nutmeg liver, the edema, and the empyema between lobes of right lung, and at the same time there were possibly lesions of the intestines which produced the aromatic poisoning by absorption of toxins resulting from proteid putrefaction and constipation, or "the lengthened stay of the intestinal contents in the bowels which opium caused," as Dr. A. E. Garrod suggested; hence the jaundice from urobilin and the progressive shortness of breath. The resemblance between the description of the color of this woman, viz.: yellow skin, with purpuric patches on thorax and abdomen, by Dr. Rolleston, in England, and of the description of yellow fever patients by Drs. Joseph and Hamilton P. Jones, in New Orleans, is remarkably suggestive; also Pothier notes this jaundice and patches with yellow fever patients.

2. The *British Medical Journal* of December 2, 1897, page 1847, contains the following interesting results of clinical and laboratory work done by Dr. C. A. Herter, visiting physician to the City Hospital, and consulting physician to the Babies' Hospital of New York City:

"There is a striking increase of indoxyl potassium sulphate in urine during derangements of the intestine, and this may be increased artificially—

"(1) By the introduction of large numbers of the common colon bacillus into the intestines, which markedly increases the indican of urine and with it all the ethereal (or aromatic) sulphates (of indol, phenol, cresol, and skatol). Dogs used for this experiment had a pure meat diet, and 100 cubic centimeters of pure cultures of colon bacillus, five days old, injected into the jejunum, or a meal of 200 cubic centimeters, or of 300 *c. c.* of colon bacillus was fed to them with other food.

"(2) The introduction of large numbers of proteus vulgaris may increase the aromatic or ethereal sulphates without increasing the indican perceptibly.

"(3.) The introduction of lactic acid bacilli into the intestine (or a pure bread and milk diet) may markedly reduce the indican of the urine, together with the aromatic or ethereal sulphates.

"The indigo blue reaction of indol is usually, if not always,

increased in urine of children suffering from gastro-enteritis in whom the common colon bacillus is often present in increased numbers, sometimes at the expense of other varieties of bacteria."

Herter shows clearly enough by his observations that—

1. Persons suffering from intestinal lesions absorb much larger quantities of aromatic toxins than when the intestines are normal because the indican test of urine shows a decided increase during enteritis.

2. That the aromatic toxins are generated mainly by colon bacillus among putrefying proteids, that proteus vulgaris may generate the aromatic toxins to a small extent, but lactic acid bacillus reduces their quantity.

3. From *British Medical Journal*, Feb. 26, 1898, page 36, Pathology:

"Dr. Pellegrini in the *Rivista Sperimentale di Freniatria*, 1897, has made a statement of his experiments which go to show that the amount of potassium indoxyl sulphate in the urine is a reliable index of the degree of its toxicity. He recommends the employment of Primavera's test for this substance, which is as follows: Pour from 4 c. c., to 5 c. c., of urine into a test tube and add slowly one third the volume of pure concentrated sulphuric acid. Cool the mixture by dipping the end of the test tube into cold water, add 1½ c. c., of pure chloroform. Mix thoroughly and then allow the chloroform to settle to the bottom of the tube. If potassium indoxyl sulphate is present in normal quantity, the chloroform has a light blue tint. When it is present in excessive amount the chloroform has a deeper blue color proportioned to the excess. Information regarding the degree of toxicity of the urine is of special value in cases of insanity, in the causation of many of which auto-intoxication is now known to be a very important factor. Pelligrini believes that the increased toxicity of the urine in such cases is chiefly due to abnormal fermentation within the gastro-intestinal tract; it is important, therefore, to correct any disorder of digestion in these patients."

Pelligrini is wrong in attributing toxicity to the conjugated sulphate of indol in urine, but would have been right in considering that indican in urine in large quantities is an index of a poison extracted from the human blood and that this poison is a

nerve poison which can even produce insanity when patient is intoxicated by the products of his own body to an extreme degree. He calls very properly this sort of poisoning an auto-intoxication, though I think the word intoxication a better one, as it shows that the intoxication comes from a bacterial product and not from any alcoholic or other intoxicator. Not one of these men has discovered the processes of aromatic toxins, how they enter the blood stream and how their poisonous action is paralyzed by enemias of boracic and tannic acids and by putting sodium sulphate into blood stream to form subjugated sulphates.

The shreds of truth contributed by my laboratory work in physiologic chemistry and by my clinical observations of aromatic intoxications of Walker, Langfelder, my brother, and especially of myself, have led me to open a field of thought and work in new directions. I trust that these new directions may show modern medicine chemic and physiologic reasons for many things which are now empiric or are closed books to human reason. By adding new methods of diagnosis to the old ones we take a giant stride up the mountain of truth and of science, which gives us wider horizons. These wider horizons may lead to other new methods of diagnosis which may put in our hands surer weapons for our never-ceasing fight against decay, disease and death.

The three articles, one on psychiatric troubles by Pelligrini, another on enteric troubles by Herter, and a third on urobilin jaundice and shortness of breath by Rolleston, all taken from last year's and this year's issues of the *British Medical Journal*, show the wide horizon which can be opened up by a proper knowledge of aromatic toxins. It rests now with physiological chemists and bacteriologists, the new soldiers who have joined our ranks in our fight with death, to clear away the road for further advance. We practitioners can assist their advance by our bedside experiences and properly directed observations.

For fear that the indican test should be relied on too much to prove the presence of aromatic toxins in blood stream I add what Herter says about it:

“The work of Baumann in 1880 and of subsequent observers has taught us that, although the putrefactive decomposition of proteids in the intestine is a consequence of the activity of micro-organisms which regularly inhabit the gut, this decompo-

sition often exceeds the limits of health. This excess may be roughly measured by the excretion of the total aromatic or ethereal combinations, or it may be very inaccurately estimated by the sulphuric acid combinations of particular aromatic decomposition products of proteids such as indol, phenol, cresol or skatol. Especial interest attaches to one of these aromatic products—indoxyl potassium sulphate—because of its ready detection and because of the striking increase which it often undergoes in derangements of the intestine. The increase of indican which occurs in pathologic and in experimental occlusions of the gut is probably referable to increased multiplication of the common colon bacillus. While it is probable that the putrefaction of proteids outside the intestine, as for instance in some abscesses, leads to the production of indol, it is not yet clear that such putrefaction is the sole cause of the indican which has been observed in such cases.

“ Ordinarily various factors may operate to prevent the appearance of more than a trace of indican in the urine. One of these is the influence, clinically demonstrable, of a diet containing a large proportion of carbohydrate food. Another is the influence of milk. In both these cases the formation of organic acids is the probable cause of the inhibition of indol production. It is likely that the lactic acid bacillus in the presence of carbohydrates is an important factor in checking indol formation, at least in the small intestine. We must also remember in this connection that if the supply of ingested proteids be in a form which permits its products to be largely absorbed from the upper portion of the gut, indol production is likely to be less than where a considerable supply of proteid derivatives reaches the ileum and colon.”

As these observations of Herter coincide completely with my own experience and show the absolute need of a more reliable test for practitioners in testing urine for possible excess of aromatic toxins in blood stream, I hope that chemists or bacteriologists may soon supply us with a more trustworthy test for skatol, etc. The oxidizing agent employed by Herter was a 4 per cent. solution of perchloride of iron in concentrated hydrochloric acid. The best of all tests for indican is that given by Pellegrini as Primavera's test, which I have already given. It is odd that Professor Metz and I have been using this same test,

discovered by each of us, without knowing anything of Primavera's using it. It is more delicate and reliable than the others, though I must warn all who use it that the blue reaction is very pinkish, in fact, more pink than blue, although a decided bluish tinge pervades the crust of chloroform deposit when it comes in contact with superposed urine. In all cases it is a better test than Starling's or Herter's, the two others cited in this article.

Dr. Metz, professor of medical chemistry and medical jurisprudence at Tulane University, chemist of the city of New Orleans and of board of health of Louisiana, and the best physiologic chemist I have met among American chemists, assures me that his own experiences prove the increase of indoxyl potassium sulphate in cholera infantum, in tyrotoxicon poisoning and in all other diseases accompanied by collapse. More important still, Professor Metz is, like myself, blessed or cursed with extremely sensitive olfactory nerves, and in many cases of yellow fever seen by him in his capacity as chief of sanitation and inspection of the city of New Orleans during the late epidemic, he remarked the peculiar smell of skatol emanating from the bodies of yellow fever patients, and so strong was this odor in the case of a Mr. V. that he refused to believe the assertion of V.'s attendants that no fecal matter existed in the room where V. was lying, and Professor Metz ordered the sanitary officers assisting him to search the room thoroughly for fecal matter, which they did, without finding any.

Professor Metz having separated skatol in his laboratory from intestinal contents is accustomed to the smell of it, as I am, and his fine sense of smell led him to recognize it immediately, when in sufficient quantity to offend his olfactory nerves. He became so accustomed to find this odor in yellow fever cases that he took it as a matter of course, and made no attempt to count the percentage of cases having it.

An exact knowledge of the pigment of urine is wanting, but since urobilin and stercobilin are alike, it is probable that stercobilin absorbed into blood stream directly by the internal iliac veins finds exit in the shape of urobilin chromogen through kidneys into bladder, so that the coloring matter of normal urine is exclusively due to stercobilin (hydrobilirubin) absorbed normally into blood stream through the internal iliac veins.

Since these pigments play such an important diagnostic role we must decide whether the decomposition of blood corpuscles furnishes any coloring matter to stercobilin or to urobilin, and in this way we can decide from the color of normal urine the amount of stercobilin absorbed normally into blood stream. Experiment has shown that when blood corpuscles are broken up in the circulation (a process which is normally taking place on a small scale) no bile pigment is formed except by the agency of the liver. A great breaking up of blood corpuscles and setting free of hemoglobin may be caused in animals by the inhalation of arseniuretted hydrogen. If the liver be present this disintegration of blood corpuscles causes a greatly increased formation of bile pigment, which is eliminated with the bile, or partly reabsorbed by the lymphatics from the biliary passages, giving rise to jaundice. If in a goose the liver be shut out from the circulation or extirpated and arseniuretted hydrogen administered not a trace of bile pigment is produced. We must look then to the liver for the origin of all pigments which become transformed in lower intestine into stercobilin, and in kidneys become urobilin chromogen. We must remember that urinary components, once arrived into bladder, are not absorbed into blood stream normally, but fecal components are absorbed normally into blood stream up to the very moment that they are ejected from the body per anum.

Since fecal components can become parts of living tissues and exercise a benign or malign influence on them it would be a matter of surprise that so much more attention has been given by chemie physiologists and pathologists to urinary components than to fecal, if we did not take into account how elusive fecal components are to physiologic chemists; for not only does chemistry play an important rôle, but equally so does bacteriology in the contents of intestines from cecal valve to anus. This mixture of chemie bacteriologic results renders the human colon one of the most interesting of all problems to biologists, for the colon with its proteids putrefying under the action of numerous bacteria of different species, not only fabricates many and dangerous toxins, but absorbs these toxins in a seemingly reckless way into the healthy, normal blood stream, where they seem to exert a beneficent or neutral influence until they are absorbed in abnormally large quantities or can not leave blood

stream by their normal means of exit (the kidneys and bladder), then they become decidedly maleficent.

The colon and its products with their malign and benign influences are biologic problems; for in the colon we find very low forms of plant (bacteria) and of animal (worms) life, which flourish vigorously in their warm, moist habitation and, undisturbed by any ray of light, produce with tropic luxuriance in the putrefying proteidic soil more toxins and dangers to human life than are produced in any other part of the human body. Chemistry alone could never solve such difficult problems, and as chemistry was compelled until now to confront this excremental problem alone, it attacked the urinary problem only, as it felt itself incapable of solving the more difficult fecal problem. The chemic and microscopic constituents of urine were rightly hailed by medical men as diagnostic indices, so much surer, more trustworthy and more tangible than any hitherto known, that urine until now has been a species of medical Mecca to which all medical eyes have been turned, and from which all diagnostic blessings were expected. To such an extent was this the case that medical men neglected the seemingly innocuous colon, with its putrefying proteids producing toxins which entered the blood stream, the tissues of brain, nerves, bones, muscles and articulations, spreading disease and death in their train, while medical men dreamed that all these poisons went into the portal circulation to be carried to the liver, that filter of filters, which cleansed the blood of all impurities, sending healthy blood stream to the heart and all impurities, poisons and toxins back into intestinal canal to be excreted. They little dreamed that the colon is a species of huge abscess, full of putrefaction and of toxins resulting from putrefying substances. That this abscess has no non-absorbent membrane to protect man, but the most absorbent membrane of the body sucks from these putrefying proteids dangerous poisons, which normally enter blood stream to be eliminated when not too great in quantity. This normal quantity can be and is very often increased by lesions of all kinds, by advancing years, by a diet of concentrated foodstuffs, by the habits of civilized life preventing a proper amount of exercise, etc., which produce malaise, pains, neurasthenia, confirmed ill health and even death. Chemists, doctors of medicine, bacteriologists and microscopists wondered

that urine could give no clue to this complexity of ills, and they have tortured their minds for the last decade to extract from urine the explanation which putrefying proteids and their toxins only can afford.

I include under aromatic toxins all the toxins derived from the putrefaction of proteids in the lower ileum, where the odor of skatol commences, and from cecal valve to anus, where the odor of skatol exists always. I include any other toxins which may be generated in the intestinal tract mentioned and can be absorbed from this tract into normal blood stream. There are so many different smells emitted from armpits, skin, saliva, perineum and inguinal region, or mingled with gases escaping from the anus during morbid processes, or even during moderately good health, or seemingly perfect health, that I think there are a great many more aromatic toxins in existence than the five already discovered and cited. It is more than probable that all the toxins generated in this intestinal tract will have special odors, as they must be the result of putrefaction or of morbid processes acting on proteids. Urea is an end product of proteid disintegration, is odorless, and is not an aromatic toxin. When the liver throws urea into normal blood stream to be extracted and excreted by the kidneys the amount of urea excreted in a day is simply an index to the activity of the proteid metabolism, whether this be due to a large proteid diet, or to fevers, when a rapid disintegration of the tissues is going on and a large amount is secreted, or when a carbohydrate diet produces a small amount of urea.

The feces consist mainly of the indigestible residue of the food or of substances which have been taken in too large quantities to be digested, and contain—

1. Cellulose, woody fibre, elastic tissue, keratin, and remains of muscle fibres, starch grains and fat.
2. The unabsorbable parts of the digestive juices, such as mucin, altered cholalic acid, bile pigments and cholesterin.
3. Indol, skatol, phenol, cresol, ammonium valerianate (and other aromatic toxins probably), various forms of bacteria, and disintegrated epithelial cells from the intestinal mucous membrane.

None of these can be really called the end products of digestion, and we must look to urine for these end products. Even the aromatic toxins find their end products in urine as conjugated sulphates.

Bondurant, writing on "Autogenous Poisoning in Disease," *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* of December, 1897, says:

"The human organization produces within thirty-six hours leucomaïns 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 disease.

"The milder manifestations of auto-intoxication are well illustrated in an ordinary case of acute constipation, in which the poisons generated in the intestinal canal 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 or 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."

These cases of acute constipation and bilious attack are aromatic intoxications of a light nature, although the so-called "bilious attack" in my brother's case caused him to lie in bed for weeks in a stupid, lethargic condition in a tower of his house, remote from noises, visitors, servants and even members of his family, as the presence of any one in the room irritated him.

Bondurant gives thirty-six hours as the time necessary to produce death when all eliminations from the human body cease.

[TO BE CONTINUED.]

A NEW OPERATIVE TREATMENT FOR RETROPOSITIONS OF THE UTERUS.

BY PAUL GELPI, M. D., NEW ORLEANS.

In the course of our visits to Professor Richelot's Clinic in Paris, we have had occasion to witness a large number of gynecologic operations of major character. Like all operators of note, Richelot has his own minor details of technic, but he also possesses a certain originality, which has given birth to operative methods of great importance.

It is our purpose here to describe his method of vaginal fixation of the uterus for retroflexion and retroversion, which promises to yield most gratifying results. While correcting the displacement and the inconveniences incident thereto, unlike the methods of Mackenrodt and Dührssen, it leaves the body of the uterus practically free and thus reduces all possible elements of dystocia to a minimum. Another advantage lies in the simplicity of the operation. The results are not of sufficiently long standing to demonstrate the absolute value of vaginal hysteropexy, as Richelot performed his first operation less than a year ago. However, judging from the statistics which he has courteously placed at our disposal, his method bids fair to prove a success.

THE OPERATION.—Antiseptic precautions are taken as in vaginal hysterectomy. The patient is placed in the dorsal position. The uterus is brought well forward by a volsella grasping the anterior lip of the cervix and an anterior colpotomy is performed by making a transverse incision about an inch above the level of the external os. The vagina is well separated from the uterus, the bladder is dissected away and pushed upward and forward and the peritoneum is freely opened so as to bring the anterior aspect of the uterus well into view. Another volsella is made to seize the organ just above the isthmus. The body of the uterus can then be tilted forward *ad libitum*. The uterus must now be bound by three transverse catgut sutures to the freshly cut surface of the anterior vaginal wall. These sutures are passed from left to right, first into the superior position of the liberated vaginal flap at a point near its first margin, then deeply into the substance of the uterus, reappearing at a corresponding point on the opposite side. They must be introduced immediately above the volsella, so as to leave the greater part of the body and the fundus free. They should be placed as near together as practicable. These sutures are tightly secured and a vertical line of sutures is thus obtained. The remainder of the vaginal flap is then brought into apposition with the fresh cervical margin of the incision. This is done by means of three or four vertical catgut sutures on each side. By so doing downward traction is exercised on the superior position of the vaginal flap and the uterus is naturally dragged forward and downward back to its normal position. The original incision is thereby

made to simulate an inverted T. The vagina is then packed with sterilized cotton tampons sprinkled with iodoform. These are allowed to remain *in situ* from five to eight days.

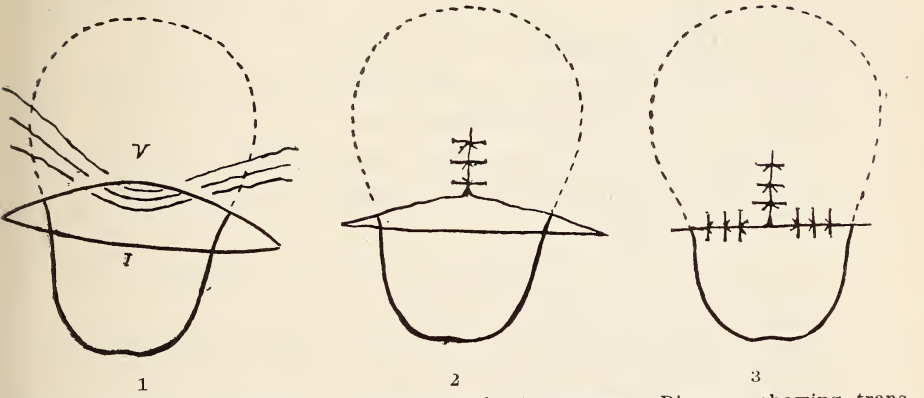


Diagram showing the vaginal incision (VI) and the three transverse sutures.

Diagram showing transverse sutures after tying.

Diagram showing transverse and vertical sutures after tying.

It can readily be understood that this operation is only applicable to cases in which the uterus is freely movable. Therefore in those cases where there are adhesions, the patient must first be subjected to massage or such other treatment as will restore mobility to the uterus. The operation is only calculated to correct the displacement and the troubles immediately incident to it, such as pain and sterility. In the presence of complications, hypertrophy of the cervix, endometritis, etc., special methods of treatment must be resorted to.

Seven cases have been treated by this method of vaginal fixation, and following is the data which we have been able to secure concerning each:

CASE I—Mrs. C., 24 years old; no children; retroflexion very marked, uterine catarrh, pains.

October 21, 1897—Curetting after dilatation; Schroeder's operation, and then vagino-fixation. The narrowness of the vagina renders the operation tedious. Only two catgut sutures can be placed on the anterior surface of the uterus, above the isthmus.

March, 1898—The result of the operation has maintained itself. The uterus is fixed in normal position, and the pains accompanying the retroflexion have completely disappeared.

CASE II—Mrs. A., 31 years old. Retroflexion, with movable uterus and enlarged cervix, metrorrhagia, pains. Vaginal relaxation.

December 16, 1897—Curetting and Schroeder's operation. Vaginal fixation by three transverse catgut sutures. The vaginal relaxation facilitates the operation.

April, 1898—The uterus is still perfectly well fixed in good position. Few slight insignificant pains.

CASE III—Y. L., 37 years old. Retroversion and cervical metritis; cervix enormous, catarrh; patient can walk only with the aid of a pessary.

January 11, 1898—Curetting and Schroeder's operation; vaginal fixation by three catgut sutures.

March, 1898, the uterus is still well fixed, the body being directed forward and the cervix behind. The patient has no pains and walks about freely.

CASE IV—Mrs. B., 33 years old. Three children. Retroversion and enlarged cervix; pains, uterine catarrh.

February, 3, 1898—Curetting and Schroeder's operation. Vaginal fixation.

Patient has not been seen again.

CASE V—M. F., 22 years. Miscarriage in 1896, followed by febrile accidents. Pains, exquisite sensitiveness of the whole utero-ovarian apparatus. The annexa do not appear very much diseased, the uterus is not deviated. Patient is nervous and arthritic.

February 5, 1898—Curetting and Bouilly's operation. Then a transverse anterior colpotomy in order to explore the pelvic cavity. Peritoneal adhesions all around the uterus, which is liberated, separated from Douglas' cul-de-sac and drawn forward. Adhesions of the annexa and large multiple cysts of the ovaries. The ovaries are drawn out successively and the cysts are opened by ignipuncture. Once this operation is over, the anterior surface of the uterus bleeds abundantly, having been torn by the volsella. Vaginal fixation is performed to bring this surface in apposition with the vaginal wound and thus secure hemostasis.

April 14, 1898—The uterus is well fixed in anteversion. No pains and good health.

CASE VI—Mrs. D., 38 years old. Retroflexion and cervical metritis; abundant uterine catarrh; little pain.

February 10, 1898, curetting and Schroeder's operation; vaginal fixation.

Patient not seen since operation.

CASE VII—Mrs. B., 26 years old; no children. Little pain, but arthritic and nervous. She fears her hereditary antecedents (her mother and grandmother having succumbed to carcinoma of the uterus). The uterus is healthy, but in marked retroversion. The operation is especially intended to remedy sterility.

March 12, 1898, vaginal fixation without any intervention on the cervix.

Though the above series of observations is not complete, it is not devoid of interest. Cases I, II and III are especially interesting, inasmuch as they show that for five, four and two months, respectively, the result of the vaginal fixation has maintained itself, the uterus being in normal position, and the symptoms accompanying the displacement having disappeared. Case V simply illustrates an ingenious application of the operation, but, considering the grave condition of the utero-ovarian apparatus, might it not be supposed that the further support given to the uterus by the fixation has contributed to the cure? Case VII is from its nature the most interesting. Unfortunately the much-desired data concerning it can not, as yet, be given. However, if sterility has been remedied by abdominal fixation, why should another operation, which likewise corrects the displacement, not yield equally good results?

Professor Richelot has not yet realized the crowning feature of his operation, the cure of sterility. However, he is not satisfied with the success which it has had to this date and purposes presenting the above cases before the Paris Surgical Society. He claims the following advantages for his operative method:

1. It is simple.
2. It corrects the displacements of the uterus and the accompanying symptoms.
3. It leaves the greater part of the body of the uterus free.
4. It obliterates the vesico-uterine peritoneal pouch and thus insures against the recurrence of the displacement.

Clinical Report.

ANEURISM OF RIGHT AND LEFT FEMORAL ARTERIES. LIGATION OF RIGHT EXT. ILIAC AND LEFT EXT. ILIAC AND SUPERFICIAL FEMORAL. CURE.*

BY A. J. BLOCH, M. D., VISITING SURGEON TO CHARITY HOSPITAL, NEW ORLEANS, LA.

In January, 1897, M. F., a native of New Orleans, but a resident in the country for many years, came to the city to seek relief from a painful swelling on the right thigh, a little below Poupart's ligament.

His attention was first directed to this growth some three weeks before, but having, during the past, suffered from an enlarged inguinal gland, the result of gonorrhoeal infection, he paid little attention to it, believing the two conditions identical. The tumor becoming more painful and enlarging rapidly, alarmed him. He consulted his physician at home, who advised him to go at once to New Orleans for relief. He advanced the information that he had used various ointments and had painted the parts frequently with iodine, with no perceptible change or benefit.

HISTORY.—Age 36; height 6 feet; weight about 185 pounds; muscular and well formed. About ten years ago received, in a personal difficulty a gunshot wound in the lung, from which he recovered in about four weeks. With the exception of an occasional infection of gonorrhoea, has always enjoyed good health. His early life was spent out of doors, having been a butcher, and as such rode largely on horseback, driving cattle. Occupation for last ten years, saloon keeper; indulges frequently with his customers, and is quite often under the influence of liquor.

EXAMINATION.—On the right leg, in the centre of Scarpa's Triangle is distinguished an irregular pulsating tumor, the upper part of which extends to the inferior border of Poupart's ligament, the whole being about the size of a chicken's egg. On palpation a decided thrill is imparted to the hand, fluctuation

* Read at the Meeting of the Louisiana State Medical Society, May 10, 1898.

is well marked and pressure on the external iliac artery causes all pulsation and thrill to cease. Diagnosis, aneurism of common femoral artery.

The nature of the growth was explained to the patient, its dangers and the necessary measures for its relief. I suggested, however, that he seek the opinion of Dr. F. W. Parham, who confirmed what I had said, impressing upon the patient the necessity of immediate surgical interference, as rupture of the sac seemed imminent.

OPERATION the following day, at the New Orleans Sanitarium, assisted by Doctors Parham, Delaup and Gessner. Usual aseptic preparations made. Chloroform anesthesia, extra-peritoneal route selected, the external iliac artery being very accessible through it and the dangers from peritoneal infection greatly lessened. Incision extended one inch from the anterior superior spine of the ilium to one inch from the spine of the pubis, one-half inch above and parallel to Poupart's ligament. Having cut carefully through skin and muscle, care being taken not to injure the spermatic cord and deep epigastric artery, the peritoneum was exposed. This delicate serous membrane was gently lifted from its attachment and pushed upward, leaving the external iliac vessel in full view. The artery was then isolated from its accompanying veins and carefully encircled with a silk ligature, guided by aneurism needle, and tied about one inch above the border of the sac. A second ligature was placed one-half inch above the first, leaving a bloodless space between the two. The wound was then closed with silk sutures (without drainage), the usual dressing applied, the entire leg enveloped in large masses of cotton, and the patient placed in bed with the leg elevated. Hot cans and hot water bottles were also placed about the leg to promote the establishment of the collateral circulation. There is little to add to the convalescence with the exception of a mild infection of the wound, necessitating the removal of all sutures and its packing with iodoform gauze. I am inclined to think that this infection was specific in nature, as the patient had a chronic gonorrhoea at the time, but sedulously kept it from me. There was never an alarming symptom from a defective circulation, the wound healed rapidly and in five weeks the patient was permitted to walk about on crutches, leaving for home one week later.

SECOND ANEURISM.—Two months subsequently I was surprised to have my old patient walk into my office. “ Well, doctor,” said he, “ I have come back to have you tie the artery in my other leg.” He said a similar swelling had developed within two weeks on the other leg and in about the same place. The examination showed that he had developed another femoral aneurism, smaller than the first, more elongated and involving possibly the lower portion of the external iliac artery. As an accessory trouble he had on this side an old reducible hernia, for which he wore a truss continuously.

Again, conferring with Dr. Parham, we decided to adopt the same surgical tactics as with the first case, to supplement it, however, by ligating the femoral below the sac, incising the latter and removing all blood clots.

SECOND OPERATION at New Orleans Sanitarium two days later. Assisted by Doctors Parham, Delaup and Richardson.

Preliminary steps same as before, the external iliac artery was exposed, but on encircling it with the aneurism needle we were a little exercised by a sudden hemorrhage. I feared at the moment that I had wounded the iliac vein; compression of the bleeding point was made and the ligation completed. Compression alone was sufficient to stop all hemorrhage, which undoubtedly came from a small vessel that had been injured. The wound after being thoroughly cleansed was only partially closed, a strip of iodoform gauze being left at the bottom to guard against and warn us of a subsequent hemorrhage. The femoral artery was next exposed by an incision of one and one-half inches in the long axis of the vessel, and a double ligature applied, as near the sac as prudence would admit. The sac was then incised and all clots removed. Again some trouble was experienced from hemorrhage, which was quite profuse, but which yielded readily to pressure applied to gauze within the sac. After closing completely the wound over the femoral artery the sac was repacked with iodoform gauze (which was to remain) and the same attention was given to the dressings and the leg as in the first instance. The convalescence this time was not as even as in the first case. On the third day the patient showed signs of becoming delirious, and for two weeks great trouble was experienced in his management. He tossed about and made many attempts to get out of bed, requiring constant attention.

A few dark spots appeared on the dorsum of the foot and on the heel, he became markedly emaciated and his strength was giving way rapidly. Heroic feeding and stimulation were diligently applied, giving large doses of strychnin and digitalis hypodermically and whiskey by the mouth. From these abscesses his wounds became infected, which proved annoying and gave great trouble in the dressing. After this battle of two weeks, marked improvement took place. The emaciation gave way to repair, the wounds became healthy in appearance and the lines of gangrene on the foot became limited and involved only the skin. After eight weeks of confinement he was allowed to return home; all wounds had healed, with the exception of that on the heel, which resulted from pressure and a temporary defective circulation.

ETIOLOGY—With due regard for all classic causes in the promotion of aneurisms, whether traumatic or idiopathic, none seem to be applicable in this instance. Direct injury and occupation do not fit and must be at once eliminated, syphilis most positively has never existed, and though alcoholism may be held in reserve as a factor in the production of arterio sclerosis, from which aneurisms often spring, there does not exist one symptom either general or local to indicate this degeneration. The age of the patient, the symmetrical nature of the disease and the rapidity of growth present a most stubborn opposition to the generally accepted causes.

SELECTION OF METHOD OF OPERATION—As already stated, the extra-peritoneal route presents many advantages over the transperitoneal. The operation can be performed rapidly without danger to underlying structures. The vessels can be brought easily into view without disturbing the abdominal viscera, greatly lessening shock. The general cavity not being opened, infection, should it occur, would be limited, easily treated and controlled. Secondary hemorrhage would be observed early, and reopening of the wound would not entail as much danger. I am not prepared to draw any conclusions by comparison of the methods employed in the two cases. Satisfactory results were obtained in both, and though in the latter slight gangrene intervened, we must bear in mind that the general disturbance, with its corresponding exhaustion, could have been a causative factor.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

THE MIAMI OUTRAGE.

Of the 6000 troops located at Miami, consisting of men chiefly, if not entirely, from Louisiana, Texas and Alabama, there are at this writing more than 1000 sick, or over 16 per cent.

We have it upon the very best authority that the fevers, diarrhea and dysentery are due to the bad water furnished these men, and we consider it an outrage that a camp should have been established without adequate inspection of the grounds, for, had such been done even by one competent man, Miami could never have been selected.

There are two water supplies: one from wells fourteen or fifteen feet deep, not more than sixty feet from which are some of the sewers, *in a porous soil*; the other is piped to the camp and is derived from the Everglades, which are marsh and swamp. The well water has been found to be contaminated by the products of the decomposition of sewage, such as free and albuminoid ammonia, *nitrites*, etc. The hydrant has been found to contain much vegetable matter. Both waters are condemned by high chemical authority, and the first shows in addition, upon bacteriologic test, the presence of the *bacillus coli communis*. What an appalling picture all this conjures up!

All the regimental surgeons have protested, but the authorities seem too slow in grasping the situation. We do not like to give expression to the subtle reasons hinted at as the cause of the selection and retention of Miami as a camp. We hope they are ill-founded, as they are disgraceful. We prefer to believe that the government has been ill-advised and will correct its mistake forthwith.

At any rate, it seems to us that the governors from whose jurisdiction come the troops stationed at Miami should be active and emphatic in their protest, and, with the assistance of their senators and representatives at Washington, should make that protest obtain due consideration.

BOARD OF HEALTH MEASURE.

The Legislature has passed the law necessary to carry out the provisions of the new Constitution of the State creating what will be a State board, in fact as well as in name, and providing for parish and municipal health boards.

The bill is based upon that to which we referred last month as the Batchelor bill. It was rewritten under authority of the existing Board of Health, was amended both in the Senate and the House, failed of passage once in the House, was passed upon a reconsideration, and was signed by the Governor about a half hour before the Legislature closed its session.

As finally passed, the provisions are in substance as follows :

Section 1 provides for a State Board of Health to consist of seven representative physicians from various sections of the State, appointed by the Governor, with the advice of the Senate, holding their offices, two for two years, two for four years, and three for six years, all subsequent terms being for seven years. The board shall meet once in every three months, and oftener, if necessary. Members not residing in the city shall be allowed ten dollars per day while going to, coming from, and in attendance at State meetings, and five cents for every mile traveled.

Section 2 says the governor shall appoint one of the members president for four years with an annual salary of five thousand dollars. The board shall elect a secretary and treasurer, not a member, for four years, with a salary of twenty-five hundred dollars a year. The duties and powers of said president and secretary and treasurer shall be the same as devolved upon their predecessors and those prescribed by this act.

Section 3 defines the powers of the State board : It shall have exclusive control over maritime quarantine within the State ; supervisory power over land quarantine, and over the control of infectious and contagious diseases ; it shall prepare a sanitary code for the State, containing the rules, regulations and ordinances for the improvement and amelioration of the hygienic and sanitary condition of the State ; it shall appoint inspectors and necessary officers and employees and fix their salaries ; it shall keep in readiness medical inspectors, nurses, medicines, clothing, bedding, appliances, tents and other necessary paraphernalia, so as to repair to any locality in the State that applies

for assistance upon the outbreak of an infectious or contagious disease. Five thousand dollars shall be appropriated annually to start this first help, after which the local authorities shall continue the work.

Section 4 provides for parish boards of health; the police jury will appoint a suitable person, not a member of the police jury, from each ward of the parish not in an incorporated municipality, three to be, if practicable, licensed physicians, said persons to constitute said boards of health; they shall elect as chairman a licensed physician, to be the health officer of the parish; shall fix his salary to be paid by the parish. The secretary and treasurer of the police jury of the parishes shall be *ex-officio* secretary and treasurer of the board.

Section 5 specifies how the legislative body of every incorporated municipal government shall organize a city board: They shall elect five persons, members of the municipal board of health, three to be, if practicable, licensed physicians, all to serve for four years. The Governor shall appoint three members on the city boards of cities of Shreveport and Baton Rouge. The legislative body shall provide for the maintenance of said board. Said boards shall elect as chairman a licensed physician, who shall serve as health officer of the municipality; shall appoint a sanitary officer, who shall also act as secretary.

Section 6 specifies that no member, with the exception of chairman and sanitary officer, shall receive any pay for services; they shall not be interested in any contracts with said board.

Section 7 defines the powers of parish and municipal boards to pass all health and sanitary ordinances incident to the proper sanitation of the parish or city. They shall act under the supervision of State Board and shall not pass ordinances in conflict with the powers of said board, but may be auxiliary to State Board. "The object of this act is to entrust full power to such local boards to establish and control all matters of strictly local sanitation, not affecting other portions of the State." All expenses of local sanitation shall be borne by the parish or city, and in case the fiscal authorities refuse to appropriate the same, the said boards to have the right to compel the proper action by said parish or city.

Section 8 defines how local boards must isolate cases of infectious or contagious disease, and communicate to the State Board

the information as to what has been done for the same ; and how the State Board or its president shall manage the cases.

In case any parish or city becomes infected so as to threaten the spread of the disease to other portions, the State Board shall instruct other local sanitary authorities the methods to adopt in quarantining persons, goods or other property coming from said localities ; if any other non-infected portion of the State desires to add to the regulations and rules already imposed by the State Board, they may do so, on approval of State Board. The State Board shall render to the local boards all the assistance in their power which their finances will permit.

Section 9 repeals all laws in conflict.

The Local Board of the city of New Orleans is given the right to collect all fees now made by the State Board within the city, other than those from the coal oil inspection and the registration of physicians, midwives and dentists ; also, the supervision over the meat inspection and sanitary regulations at the slaughtering pens or abattoirs in the parish of St. Bernard with regard to all meat intended for human consumption within the city of New Orleans.

Section 10 enacts that the Act shall go into effect after its passage and promulgation.

Of the three points for which we, in common with the State and the Orleans Parish Medical Societies contended, two were gained : the president of the State board will not be the head of the New Orleans board and the latter board will obtain much of the revenues rightly its own which were to have been diverted to the State Board. The third, providing for the appointment of the members of the State Board and the medical members of the city board from lists submitted by the State and parish societies respectively, was not incorporated owing to opposition for political reasons. The idea had many supporters in the Legislature, but the campaign had not been organized early enough to meet with success. It probably would have been possible to kill the bill by a determined effort, but such was not done owing to the fact that Governor Foster was known to favor the passage of the bill and that Dr. Souchon, the president of the existing board, was anxious not to have matters remain in *statu quo* for two years more, as would have been the result.

The Governor is expected to make his appointments shortly and we anticipate that his selections will give us a strong board. If such be the case, the profession must uphold the new board in every consistent manner and give the law a fair trial even if it is thought to have flaws. In two years, necessary corrections can be made by concerted action between the medical societies and the health authorities.

EXEMPT SURGEONS FROM CAPTURE AS PRISONERS OF WAR.

At its regular meeting on July 9, 1898, upon the suggestion originally of Dr. H.D. Bruns, the Orleans Parish Medical Society unanimously adopted the following resolution:

“WHEREAS, the articles of civilized warfare now protect the surgeon in the field against attempts at direct and purposive injury; and whereas, the making prisoners of war of surgeons in the field can only injure the enemy by depriving him of prompt, proper and skilled assistance to his wounded, an idea abhorrent to the present conceptions of civilized warfare;

“*Be it resolved* by the Orleans Parish Medical Society, that all medical bodies in this and other civilized countries, and the medical officials of our government, be requested to co-operate to the end that all surgeons in the field shall be by the articles of war adopted by civilized nations exempt from seizure or capture as prisoners of war.”

The humanity, justice and progressiveness of the idea are so obvious that it is needless to expatiate further. We appeal to all the medical societies to take proper interest in the suggestion and to use their efforts and influence in the direction of its final adoption.

This glorious country of ours should take the first step and now is the time. What a credit to us if we could announce to the world that we no longer deprive the enemy's wounded of their surgeons! It is not above us. A country that produces men like Captain Philip can do anything magnanimous. His order: “Don't cheer, lads, the poor devils are dying now!” when his gunners made an extra good hit at a Spanish cruiser, is as fine as anything in that line ever said. Surely the Orleans parish resolution is in the same vein and deserves the attention of our government.

Medical News Items.

THE LIMITATION AND THEN STAMPING OUT, by the prompt action of the Marine Hospital Service and the Mississippi State Board of Health of yellow fever at McHenry, Miss., are a cause of great gratification. The total number of cases was twenty-four. The last patient was discharged July 8, since which time there have been no other cases under treatment and no suspicious ones reported. This is probably the first early outbreak to be so successfully arrested. The Marine Hospital Service and the Mississippi Board deserve congratulation both for the achievement itself and the valuable and encouraging lesson it teaches.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION MEETING will be held at Nashville, Tenn., October 11-14. Annual addresses will be made by Dr. James T. Whittaker, of Cincinnati, on "Medicine," and by Dr. Geo. Ben. Johnson, of Richmond, on "Surgery." Nashville is well prepared for conventions and meetings, and the local profession, with Dr. Duncan Eve as chairman of the committee of arrangements, promise a good meeting. Titles of papers should be sent to the secretary, Dr. E. Tuley, 111 W. Kentucky street, Louisville, Ky. Reduced rates on all railroads will be granted on the certificate plan.

THE AMERICAN MEDICAL ASSOCIATION, at the Detroit meeting, resolved to demand of all the medical colleges of the United States the adoption and observance of a standard of requirements of all candidates for the degree of doctor of medicine which should in no manner fall below the minimum standard of the Association of American Medical Colleges; and whereas, this demand was sent officially by the permanent secretary to the deans of every medical college in the United States and to every medical journal in the United States, therefore, the American Medical Association gives notice that hereafter no professor or other teacher in, nor any graduate of any medical college in the United States, which shall, after January 1, 1899, confer the degree of medicine or receive such degree on any conditions

below the published standard of the Association of American Medical Colleges, shall be allowed to register as either delegate or permanent member of this association. It was resolved, that the permanent secretary shall, within thirty days after this meeting, send a certified copy of these resolutions to the dean of each medical college in the United States and to each medical journal in the United States.

MR. P. BLAKISTON, the well-known publisher of medical books, of the firm of P. Blakiston, Son & Co., died recently in Philadelphia. The business will be continued by his son, Mr. Kenreth M. Blakiston, the firm name now being P. Blakiston's Son & Co.

LIEUT. COL. NICHOLAS SENN has been appointed chief of the operating staff of the Sixth Corps now before Santiago.

DR. FRANK B. CARPENTER, of New York, was recently here in the interest of the Red Cross Society. A large number of applications of nurses were received and filed by him for use when needed by the society.

YELLOW FEVER has appeared in some large proportion in our troops at Santiago. Fully five hundred cases had occurred up to July 26. Fortunately the disease is reported as very mild in type.

DRS. H. E. MENAGE, W. M. PERKINS, Mazzuri, Hermann and Thomas have gone to the front as assistant surgeons in the army.

MAJOR FLOYD STEWART was united in marriage to Miss Ada Rowley, July 25, in New Orleans. The major left with Hood's regiment on the City of Berlin. The best wishes of the JOURNAL are with him and the girl he left behind him.

GIFT OF A HOSPITAL TO THE RED CROSS.—Mr. James Armstrong, of New York, has offered the Red Cross Society the use of his country house at Centre Hill, Fla., as a hospital. The house has twenty large rooms and is built on the highest point of land in the State, about seventy miles from Tampa.—*Exch.*

DR. C. H. TEBAULT, of this city, has issued an interesting circular to the surgeons who served in the Confederacy, giving some historic data, but in the main appealing for information, properly authenticated, to add to the medical records. The circular is officially signed by him as Surgeon General United Confederate Veterans.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

LAPLACE'S FORCEPS FOR INTESTINAL ANASTOMOSIS.—In the *Philadelphia Medical Journal* of June 11, 1898, Laplace describes a new forceps for aiding intestinal suture. The apparatus "consists of two forceps constructed on the plan of ordinary-looking hemostatic forceps brought together laterally and held together by a clamp. The ends of these forceps are curved into a half-circle or half-ellipse, so that on the lateral approximation of the two forceps a ring or elliptic is formed on the end of the forceps; locking takes place at the handles as in ordinary hemostatic forceps." The forceps are made in five sizes. They can be used for either lateral or end-to-end approximation.

Comment.—This instrument strikes us as very ingenious and as likely to prove of great value. The great advantage it possesses is that whilst facilitating very rapid and thorough establishment of continuity, nothing is left behind in the intestinal canal. The doctor deserves great credit for devising the instrument, which has received very favorable comment from men who are masters in intestinal surgery.

A DEVICE FOR SHUTTING OFF THE CAROTIDS IN OPERATIONS ON THE HEAD AND NECK.—Johnson, in *New York Medical Journal*, July 16, 1898, describes an instrument for compressing

one or both carotid arteries to control hemorrhage from the branches. A silk ligature is passed about the artery and a knot made at each end. A soft-wood bobbin with a slit at each end is used for catching the threads which are prevented from slipping by the knots. One or both carotids may thus be caught. Lifting at the middle of the bobbin will compress both and shut off the circulation completely from the head and portion of neck supplied above the ligature; lifting only one end will control the circulation of that side. After slipping the ligature around, the wound should be closed by suture to prevent sepsis. The operation being over, the loop is cut close to the skin on one side and the rest drawn through without deranging sutures or even dressings.

Department of Obstetrics and Gynecology.

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

SEVEN CASES OF PREGNANCY COMPLICATED BY CHOREA have been observed within the last six years. The mitral valve was affected in every case, in six a murmur was heard; in the seventh the lesion was confirmed at post mortem. Choreic movements most usually appeared during the first six months. In a fair proportion of cases (three of the seven) the movements were mild, which rather refutes the general belief that it is always a violent complication of pregnancy. All the cases were maniacal at one time or another, except one; becoming so before labor in five instances. The maniacal symptoms rapidly disappeared after labor was completed, but the choreic movements were not so easily influenced. In all, however, the movements were somewhat diminished by the induction of labor. Drugs had very little effect while the woman was still pregnant, except in the mild cases. Hyoscin proved a valuable drug for controlling the mania and chorea after delivery, and is given preference over morphia. Symptoms of mania must be carefully noted, and labor should be induced immediately if the patient's mind begins to wander. If the spasms are sufficient to destroy the woman's rest, labor should be hastened.—*The Practitioner.*

TWENTY-THREE CASES OF VENTRO-SUSPENSION UTERI with good results in all. Of the twenty-three cases two subsequently became pregnant and were delivered at term without trouble. Of all the twenty-three cases, thirteen lost one ovary and tube, five lost both ovaries and tubes and four were complicated with extensive inflammatory adhesions.—LEVINGS, *Phila. Med. Journal*.

TWO CASES OF VENTRO FIXATION are reported by Dr. Boyd, one of which had two miscarriages and one very difficult delivery at term after the operation. In the second case he delivered at the eighth month after a great deal of trouble.—*Am. Gyn. and Obst. Journal*.

[*Comment.*—As in both these cases the cervix was drawn high up and backward it is evident that the subsequent trouble was due solely to a badly performed operation.]

THE PORRO OPERATION VERSUS TOTAL HYSTERECTOMY.—Dr. Henry J. Boldt strongly advocates total hysterectomy in preference to super-vaginal amputation with extra-peritoneal treatment of the stump. With the present technic, total hysterectomy can be performed nearly as quickly as the Porro operation. The following were appropriate cases for total hysterectomy:

(1) Women who had a living child in the uterus, at or near term, and in whom the pelvic diameters would not admit of the delivery of a living child by the natural passages.

(2) When the child was dead, in utero, and the organ had been infected through this cause.

(3) When there was sufficient cicatricial contraction of the vagina to prevent delivery in the usual manner.

(4) Cases in which there was rupture of the uterus, demanding abdominal section, and in which closure of the uterine wound was unsafe; and

(5) Some cases of atony of the uterus following Cesarean section. In cases of advanced cancer of the cervix the Porro operation should be given the preference.

The advantages of total hysterectomy were: 1. Less danger of infection. 2. Practically no danger of secondary hemorrhage. 3. Less danger of intestinal obstruction. 4. Shorter convalescence; and 5. Less danger of ventral hernia.

—*American Gynecological Association Transactions*.

Department of General Medicine.

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

THE FEVER OF DIGESTION.—The alimentary canal is the grand laboratory of the organism, elaboration of numerous poisons occurring where most vital fluids are produced and we know that the many auto-intoxications from that source give rise to numberless manifestations, the most serious appearing in young organisms.

Comby has described in children a fever of digestion, due either to overfeeding or to defective alimentation, which is often mistaken for catarrhal mucous fevers, attenuated, aborted forms of grippe and typhoid infections. It even has at times an intermittent character bringing forth the erroneous impression of a malarial attack.

Upon investigating how the child was cared for, the attendant usually hears the same story, that the child was raised on the feeding bottle, and that ordinary food had been given to it at a very early period. In Comby's own words, it is found that "no rule was ever observed as to the time of feeding, the quantity and quality of solids and fluids ingested, and that the child continues to eat and drink too much, and aside from the question of quantity that the aliments are indigestible, the fluids spirituous, such as wines, liquors." The result naturally enough is that the tender organism suffers from chronic dyspepsia and remains constantly on the verge of acute infections of most serious import.

Comby gives the following clinical description of the fever of digestion:

The child, though not affected with any definite case of malady, is however in poor health, for it is pale, has no appetite, lacks vitality and energy. After supper it goes to bed, yet sleep does not come. On the contrary, the child tosses about its couch, with flushed cheeks and warm skin covered with perspiration, at times abundant sweat. Nightmares aggravate the restlessness, and the next morning, if the fever is not there, the

pale and languid appearance shows there is something wrong about the child's condition.

The capital point here is to make out the true cause of the case and to avoid the abominable blunder of prescribing to these innocent little things quinin, calisaya and other spirituous tonics which are most surely harmful.

The treatment consists in ordering good alimentation: No wine, no highly seasoned food, no spice at all, no undone meat, which, like all raw things in general, favors abnormal fermentations in the alimentary canal.

Food must be well cooked, and given as a rule in the form of "purée;" in other words, semi-liquid form. Drink must be limited to only two kinds, water or milk, and, as regards the quantity at each meal, one glass of either one is amply sufficient.

—*Medecine Moderne.*

TREATMENT OF CHRONIC INTESTINAL CATARRH.—Of course, in cases of this kind, where the slightest deviation from an appropriate diet causes diarrhea, with strings of mucus, loss of appetite, abdominal pains and bloating, the strict observance of that diet is better than any drug and mostly all physicians, and patients as well, actually depend on that rule only. Yet, Dr. Jaworski, of the Faculty of Cracovia, in such cases has obtained good results from the use of lime water saturated with carbonic acid, something in the line of the gaseous sodium solution he has recently recommended in hyperacid gastritis. Dr. Jaworski uses two solutions, a weak one containing for each quart of carbonated water two grammes of calcium carbonate and two grammes of calcium salicylate, a stronger solution containing for the same amount of water four grammes of calcium carbonate and three grammes of calcium salicylate. The patient, every morning on an empty stomach, about half an hour before breakfast, takes half a glass of the strong solution and half a glass of the weak solution after each of his three daily meals. Before swallowing the fluid it is better to wait a while for the gas in excess to escape. When the disturbance is intense, the solution must be taken warm; with this in view, half a glass of any alkaline water must first be boiled, and to it, then add half a glass of the strong calcium solution and repeat

four times a day on an empty stomach and after meals, swallowing it warm.

As soon as the stools are normal again, discontinue the use of the strong solution, but for eight and even fifteen days yet the weak solution must be taken in the morning and after meals. Then it should be given for one and even two months, after meals only.

Dr. Jaworski met with two cases only, which resisted this medication. It acts simply as an astringent and intestinal antiseptic. Of course, the diet spoken of is indispensable. In the diarrhea of consumptives this gaseous calcium solution has proven to be equally of service, also, says Dr. Jaworski, in the symptomatic diarrhea of the uric diathesis.—*Revue des Nouveaux Remèdes*.

Department of Therapeutics.

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

TUBERCULIN REACTION—Kasperek, of Vienna (*Wien klin. Woch.* No. 21, *Bull. Med.*, November 17, 1897), endeavored, by some experiments made on guinea-pigs, to solve the following questions: When an animal has been infected by means of tuberculosis bacilli, how soon after can the tuberculin reaction be observed? He has ascertained that this reaction already occurs about thirty-six hours after the injection of bacilli; provided, however, that a pathologic change, no matter how minute it may be, has already taken place. The activity of the tuberculin proved to be variable, according as the cultures were of human or bovine origin.

Kasperek has observed that tuberculin also produced fever in animals weakened by injections of diphtheritic toxins. In the latter case the symptoms differed in duration from the normal febrile reaction observed in tuberculous animals.—*Bulletin of the Pasteur Inst.*

TREATMENT OF GASTRIC ULCER BY LARGE DOSES OF BISMUTH.—Dreschfeld (*The Lancet*, March 5, 1898) in a communication on this subject mentioned the experience of Fleiner, who obtained

good results by the injection of from twenty to thirty grammes (from 300 to 450 grains) of bismuth in suspension in water into the stomach by means of a tube after previous lavage. He also referred to the work of Mattheys on the action of bismuth in hastening the cure of experimentally produced ulcers in the stomachs of dogs. Professor Dreschfeld pointed out the inconveniences and dangers of using the stomach tube in cases of gastric ulcer, and stated that he had observed excellent results by giving large doses of bismuth by the mouth after ordinary doses had proved unsuccessful. Doses of from thirty to forty, or even fifty, grains of bismuth subnitrate were given three times a day suspended in water. Under these pain was rapidly relieved, vomiting ceased, digestion improved, allowing light nitrogenous food, such as fish or fowl, to be given, and the ulcer quickly healed. He had not seen any bad effects from these large doses other than a little pain and diarrhea—never constipation. He had used this treatment chiefly in chronic cases, but in some acute cases after recent hematemesis it had proved successful. In acid dyspepsia, too, it rapidly relieved the symptoms. In neurasthenic conditions, with symptoms resembling those of gastric ulcer, it had also been of great benefit. Two cases of gastric ulcer, which were not relieved by large doses of bismuth given by the mouth, were cured by carrying out Fleiner's method of lavage of the stomach and injection of the bismuth by means of a tube.—*Medicine*.

THE ACTION OF THE ALKALOIDS OF OPIUM UPON PERISTALTIC MOTION.—After a careful review and discussion of the results obtained by other investigators, V. Vamossy (*Rev. de Thérap.*), describes in detail the method which he employed in arriving at the following conclusions in regard to the question: What is the cause which gives to opium a greater inhibitory action on the peristaltic motion of the intestines than morphin?

1. Morphin injected in the venous circulation has the power by its centric action to hinder the action transmitted by the pneumogastric to the centres, its centripetal action is not transmitted by the centrifugal route to the intestines and does not provoke contractions.

2. Local injections of morphin into the intestines showed that the excitability and conductivity of the nervous system of the

four times a day on an empty stomach and after meals, swallowing it warm.

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2. Local injections of morphin into the intestines showed that the excitability and conductivity of the nervous system of the

intestines undergoes a considerable diminution as the result of the local irritation.

3. The excitations which pass by the centrifugal motor channels to reach the intestinal wall encounter the terminal nerve fibres and ganglions in a state of narcosis.

4. Narcotin acts but slightly as an inhibitor of reflex excitability in the intestinal wall, and possesses no inhibitory action upon peristalsis.

5. Papaverin resembles morphin more closely in its action upon peristalsis, but its action is too unstable.

6. Thebain augments intestinal excitability and provokes in consequence an intense peristalsis.

7. It can be no longer held that narcein acts in opium as an augmenter of inhibition to peristalsis in a manner similar to morphin.

8. Codein exaggerates the intestinal excitability.

9. Cryptopin and laudanin also act as augmenters of intestinal excitability.

As the result of his study the author concludes that opium does not owe its favorable influence upon the intestine to the presence of the accessory alkaloids which it contains.—*The Therapeutic Gazette*.

HEMATEMESIS.—Robin (*Medical Press and Circular*) says that the best symptomatic treatment of hematemesis is as follows: As soon as you are called to a patient who vomits blood you must order him to bed, enjoin absolute immobility, give a hypodermic injection of ergotin over the epigastrium, and then apply ice. Internally, from one to two grains of opium should be given, and every two hours a teaspoonful of the following mixture:

℞ Ergotin	ʒi.
Gallic acid	grs. x.
Extr. of opium	grs. ii.
Syrup of turpentine	ʒi.
Water.....	ʒiv.

For the syncope that may occur you should employ the usual remedies—horizontal decubitus, head low, injection of ether, flagellation, mustard leaves to the legs. Where symptoms of peritonitis set in, indicating perforation of the stomach, you should use hypodermic injections of morphin. In event of the

vomiting becoming incoercible, you should order from eight to ten drops of the following preparation in a small quantity of water, to be repeated at intervals:

℞ Picrotoxin	gr. j.
Hydroch. of morphin	gr. j.
Sulphate of atropin	gr. $\frac{1}{30}$.
Ergotin	grs. xx.
Water	℥ii.
Alcohol	(q. s. to dissolve).

Besides the immediate accidents, hematemesis may be followed by other effects which should not be forgotten. The blood which has not been rejected may decompose and provoke putrid fermentation, especially in cases of constipation. The odors of the matters last vomited and of the breath of the patient will warn you of this condition. In such cases, purgatives are indicated in order to evacuate the intestinal tract as quickly as possible. Besides enemata of antiseptic solutions, you may give a powder composed of—

℞ Calomel	grs. ij.
Jalap	grs. vj.
Hydrated magnesia	grs. xx.

When the patient has got over his attack he will generally remain anemic and debilitated. Preparations of iron become imperative, and preference is given to the perchloride, as it is hemostatic as well as ferruginous. At the end of ten or twelve days it should be suspended, or it will act as an irritant to the gastric mucous membrane.

ACUTE ARTICULAR RHEUMATISM.—The following ointment is said by Lemoine (*Nord Médical*) to give relief in acute articular rheumatism:

Vaselin	25 parts.
Salicylic acid	4 “
Sodium salicylate	3 “
Extract of belladonna	1 “

M. To be applied and covered with cotton.

IN ORDER TO PURIFY THE ATMOSPHERE of the room inhabited by a phthisic patient the following solution may be plentifully and frequently sprayed:

Guaiacol	10
Eucalyptol	8
Carbolic acid	6
Menthol	4
Thymol	2
Oil of clove	1
Alcohol (95 per cent.)	170

Mix and dissolve.

—*The Practitioner.*

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

A Text-Book of the Practice of Medicine. By JAMES N. ANDERSON, M. D., Ph. D., LL. D. W. B. Saunders, Philadelphia, 1897.

This work is eminently fitted to fulfil the position its author intended it. Representing as it does the present state of our knowledge of the practice of medicine, the student will find it a most excellent guide. Several departures from conventional methods pursued in the works on the practice of medicine are noticed, which in most instances enhance the value of the book.

The special pathology of the individual affections is almost invariably taken up before the etiology, which we deem an advantage, and bacteria as a curative factor of disease are prominently brought forward, and numerous diagnostic tables are scattered throughout the work, adding much to its worth as a text-book. In giving the dosage, however, we very much regret that in a number of instances the metric equivalents are given in round figures instead of the exact decimal figures.

We venture to predict the work will take a place among the prominent text-books in our colleges of medicine. STORCK.

Diseases of the Eye. By ED. NETTLESHIP, F. R. C. S. Revised by W. T. HOLMES SPICER, A. M., M. B., F. R. C. S. Fifth American, from sixth English edition. Lea Bros. & Co., Philadelphia and New York, 1897.

The appearance of "Nettleship on the Eye," in the handsome fifth American edition, is like the sight of an old friend in whose prosperity we rejoice.

After all is said—and after the publication of many a wearisome, bulky text-book—we still turn to Nettleship as the best book for the student or the practitioner who desires to begin the study of this organ and its multitudinous diseases.

Compensious, yet complete and satisfactory, not beyond the means of any purse, the work of a master of long and varied experience, we know of no text-book that can as yet take its place. If any who vaunts his knowledge of the subject is inclined to doubt this assertion, let him look over the chapters on Diseases of the Cornea, and on Glaucoma, and say if there is nothing that this little work can teach him, and that with a clearness, conciseness and simplicity that might well be the envy of all text-writers.

BRUNS.

Retinoscopy. By JAMES THORINGTON, M. D. Second Edition. P. Blakiston, Son & Co., Philadelphia, 1898.

We have received the second edition of Thorington's *Retinoscopy*. It is human that we should be gratified by this quick confirmation of the approval we gave the little work upon its publication a short while ago. The second edition is even clearer and better than the first, and we are glad that the author has not made the mistake (so common in second editions) of adding greatly to the number of pages. BRUNS.

A Manual of Obstetrics. By A. F. A. KING, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., etc. Seventh Edition. With 223 Illustrations. Lea Brothers & Co., Philadelphia and New York.

There can be no stronger evidence of the popularity of this little book than the fact that seven editions are published within two years.

While manuals of obstetrics in general, said to be published for the benefit of the so-called "busy practitioner," are not worth one-half the amount of money charged for them, this one is an exception.

There have been so many alterations made in the text that it is almost a new work when compared with the sixth edition.

The different subjects are briefly but clearly discussed, and the suggestions made are reliable.

While it is not intended to replace the text-book, in certain regards it is superior to some of them. MICHINARD.

A System of Medicine. By many writers. Edited by THOMAS CLIFFORD ALLBUTT, M. A., M. D., LL. D., etc. Vol. III and Vol. IV. The MacMillan Company, New York and London.

In reviewing Vols. I and II of this admirable system we were struck with the careful editing displayed.

Our copy of Vol. III, unfortunately, has been issued in identical counterpart of Vol. II, probably an error of the printer or binder, so we can not review it. Such faulty copies should be called in.

Vol. IV is prefaced with the editor's comment "some of our readers have complained of the unsystematic use of names and titles in our articles. The complaint is well founded; my reply is that I have made convenience my sole guide in this respect, and this reply I conceive to be satisfactory. Medical nomenclature is so backward, and for some time to come must be so backward, that it would be worse than useless to arrange our names under any pretence of system."

This is really one charm in the series of articles presented and indicates the broad handling of the material. The usual ragout of subjects sifted down into the text-book-regulation style soon tires, while in this system a reader finds interest increasing as he reads.

Vol. IV contains articles on General Diseases of Obscure Causation, Diseases of Alimentation and Excretion. As in the other volumes, the

articles are from the pens of various writers. All are comprehensively written and no attempt is made at economizing space. The article on diabetes mellitus, as an example, is complete, even to the more recent improved sugar tests, and it details the accidents to other organs than the kidney in the diabetic advance; the several conditions and concomitant diseases of the skin possible, or which have been noted, are described briefly or at length as the occasion demands. It is the best system of medicine we have as yet seen.

DYER.

The Elements of Clinical Diagnosis. By Prof. D. G. KLEMPERER. First American, from the seventh (last) German edition. Translated by N. E. BRILL, A. M., M. D., and S. M. BRICKNER, A. M., M. D. The MacMillan Company, New York and London, 1898.

This handbook of diagnosis is well arranged and is so clearly written that it will be useful to the student on that account. It is comprehensive and embraces urinary analysis and the examination for the commoner bacteriologic diseases. The illustrations are very good. The one fault in the book is in the numerous errors in orthography, which show careless proof-reading.

DYER.

A Manual of Instruction in the Principles of Prompt Aid to the Injured. By ALVAH H. DOTY, M. D., Health Officer to the Port of New York, etc. Second Edition. D. Appleton & Co., New York and London, 1898.

The first seven chapters are devoted to a brief outline of the essentials of anatomy and physiology; chapters on bandaging, fractures, shock, hemorrhage, etc., follow. Many practical illustrations are used to elucidate the text. The final chapter is devoted to Transportation of the Wounded and is profusely illustrated with methods and appliances for use on the battle-field.

DYER.

Atlas of Legal Medicine. By DR. E. VON HOFMANN, Professor of Legal Medicine and Director of the Medico-Legal Institute at Vienna. Translated by FREDERICK PETERSON, M. D., assisted by A. O. J. KELLY, M. D. W. B. Saunders, Philadelphia, 1898.

The amount of material and of research necessary to the preparation of this work is remarkable. The book contains a mass of information, arranged in plates, tables, chromo-lithographs, color-types and wood cuts, covering every possible accidental pathologic condition of medico-legal importance. Phases of toxicology, suicide, murder, accidental death, hanging, drowning, etc., are represented vividly in striking illustrations, artistically and graphically executed. The work is invaluable to the medico-legal expert, and as well to those interested in such questions, whether from office or predilection.

DYER.

PUBLICATIONS RECEIVED.

System of Medicine, Volume VI, by Many Writers, edited by Thomas Clifford Allbutt, M. A., M. D.—The Macmillan Company, New York, 1898.

Hay Fever and Its Successful Treatment, by W. C. Hollopeter, A. M., M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

American System of Practical Medicine, edited by Alfred Lee Loomis, M. D., and William Gilman Thompson, M. D.—Lea Brothers & Co., New York and Philadelphia, 1898.

Conservative Gynecology and Electro-Therapeutics, by G. Betton Massey, M. D.—The F. A. Davis Company, Philadelphia, New York and Chicago, 1898.

Compend of Diseases of the Skin, by Jay F. Schamberg, A. B., M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

Modern Surgery, by John Chalmers Da Costa, M. D.—W. B. Saunders, Philadelphia, 1898.

Syphilis and the Venereal Diseases, by Professor Dr. Franz Mracek, edited by J. Bolton Bangs, M. D.—W. B. Saunders, Philadelphia, 1898.

Operative Surgery, by Dr. Otto Zuckerkandl, edited by J. Chalmers Da Costa, M. D.—W. B. Saunders, Philadelphia, 1898.

International Clinics, Volume II.—J. B. Lippincott Company, Philadelphia, 1898.

REPRINTS.

Appendicitis, by Joseph Eastman, M. D., LL. D.

Summary of Pathologic and Bacteriologic Work at Isolation Hospital.—New Orleans, La., by O. L. Pothier, M. D.

Report for the Year 1897-98, presented by the Board of Managers of the Observatory of Yale University to the President and Fellows.

Commencement Address, by Wm. Preston Johnston, LL. D.

Ueber die Anwendung des Ichthyols bei Augenkrankheiten, by Dr. M. Eber-son.

Sur le Traitement de la Chylurie par L'Ichthyol, by Dr. Moncorvo Fils.

Les Lymphangites de L'Enfance et leurs Conséquences, by Dr. Moncorvo Fils.

New Forceps for Intestinal Anastomosis, by Ernest Laplace, M. D., LL. D.

Diseases of Tropical Climates, Their Prevention, Diagnosis and Treatment, by T. S. Dabney, M. D.

Case of Acute Double Hydrocele, Due to Secondary Syphilis, by Howard Paxton Collings, B. S., M. D.

Bilateral Syphilitic Ulceration of the Palpebral Conjunctiva, by Clarence A. Veasey, A. M., M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR JUNE, 1898.

CAUSE.	White	Colored...	Total
Fever, Malarial (unclassified).....	5	3	8
“ “ Intermittent		1	1
“ “ Remittent	3	2	5
“ “ Congestive.....	1	2	3
“ “ Typho	2		2
“ Yellow			
“ Typhoid or Enteric.....	12	6	18
“ Puerperal			
Influenza.....			
Measles			
Diphtheria	1		1
Whooping Cough	1		1
Apoplexy	8	3	11
Congestion of Brain.....	4	1	5
Meningitis	4	3	7
Pneumonia.....	7	13	20
Bronchitis	5	8	13
Cancer.....	13	2	15
Consumption.....	30	31	61
Bright's Disease (Nephritis)	13	15	28
Uremia	3		3
Diarrhea (Enteritis).....	32	20	52
Gastro-Enteritis	7	3	10
Dysentery.....	3	3	6
Hepatitis	3		3
Hepatic Cirrhosis	8		8
Peritonitis.....	2		2
Debility, General		4	4
“ Senile	10	7	17
“ Infantile	4	10	14
Heart, Diseases of	16	18	34
Tetanus, Idiopathic			
“ Traumatic	1	1	2
Trismus Nascentium.....	6	6	12
Injuries	6	8	14
Suicide	1		1
All Other Causes	125	78	203
TOTAL	336	249	585

Still-born Children—White, 37; colored, 15; total, 52.

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

Death Rate per 1000 per annum for month—White, 20.68; colored, 37.40; total, 25.53.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.05
 Mean temperature..... 81.00
 Total precipitation..... 3.79 inches
 Prevailing direction of wind, southeast.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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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.]

CONTAGION AND INFECTION WITH PARTICULAR REFERENCE TO YELLOW FEVER—MEASURES TO PREVENT ITS SPREAD WHEN ONCE INTRODUCED INTO A COMMUNITY.*

BY C. FAGET, M. D., NEW ORLEANS.

The literature on *Contagion* and *Infection* has assumed vast proportions. No work on this much discussed subject commends itself more to me than the exhaustive and admirable treatise of Laroche, of Philadelphia. The proofs he adduces of the non-contagiousness of yellow fever are conclusive. They have been corroborated by all subsequent experience. When, however, he attempts to prove its non-importability or local origin on the well-established ground of its non-contagiousness, his argument weakens. The most unhappy confusion has existed and still exists between the terms contagion and infection, owing to the idea that importation, transportation, communicability from place to place of a disease necessarily implied contagion, especially at the time when the local or foreign origin of the fever was in question.

If yellow fever is contagious in the same sense as small-pox, could there have arisen any question as to its contagiousness? Eminent authorities differ, and non-contagionists becoming con-

* Read before the Orleans Parish Medical Society.

tagionists and *vice versa*. Would not this confusion tend to strengthen the opinion that those who become convinced of the non-contagious nature of yellow fever were led to believe in its local origin, and, on the contrary, those who were convinced of its importation at the same time admitted its contagiousness, at least under certain circumstances, importation, transmissibility and contagion being indissolubly linked in their minds.

Could there not be a transmissibility of infection through objects, outside of the human organism, the patient in the case being the effect (the only indication of infection) and not the cause?

At the time of the first visitation of yellow fever in the United States, physicians unanimously believed in the contagious nature of yellow fever. Its importation was evident, and the disease seemed to spread from the sick to the healthy, as with other contagious diseases. But in 1821, when Chervin, the great anti-contagionist, visited the principal ports of the United States, the general opinion had been so modified that he found but Dr. Hosack, of New York, and a few belated (*sic*) practitioners who still held to the former opinion. Devèze was a contagionist, but was converted after he had acquired experience in the mode of spread of this fever in New Orleans. The celebrated Rush, of Philadelphia, Caldwell, Physick, Miller and many other authorities were also converts. In New Orleans as non-contagionists we find the names of Drs. Thomas, Gros, Chabert, Barton, Harrison, Stone, Faget, Deléry, Beugnot and others. In the West Indies the unanimous verdict of physicians is in favor of the non-contagious nature of yellow fever. As far as the number of authorities is concerned, the preponderance is decidedly in favor of the doctrine of non-contagion. "Add to this that in all the cases mentioned the change of opinion has been the result of a more extended sphere of observation and of a more mature experience in the disease." Dr. Dickson said that he believed yellow fever to be transmissible or communicable from one city to another, provided the general circumstances are similar or analogous. He added: "Of its contagiousness, using the word in its limited sense, its propagation from one subject to another, I have never witnessed any example."

Dr. J. C. Faget, although he did not believe in the contagiousness of yellow fever, believed in its importation into New

Orleans, and from New Orleans to the interior towns. He said: "It is evident that the transmission of the air of a city infected with yellow fever is possible, in boxes, in bales of merchandise, and especially by the boats going up the river to Baton Rouge, Natchez, and so forth, as the epidemics of the interior towns of Spain were imported from Cadiz, Malaga, Barcelona and other ports." Named by Major General Banks in 1864 on an advisory commission with Dr. Smith, of Boston (chairman), and Dr. Holliday, of Louisiana, he wrote the report on measures to prevent the introduction and spread of yellow fever in this country, which report was adopted and forwarded to the Federal authorities at New Orleans.

Even Laroche says that, admitting the importation of yellow fever from one place to another had been proved beyond a doubt, this importation (the point at issue with him) does not necessarily involve the question of contagion. Every one agrees as to the meaning of contagion: the transmission of a disease from person to person through inoculation or the exhalations of the sick to the well, within a more or less circumscribed distance. Syphilis, for instance, and very likely leprosy, require inoculation. Small-pox and the eruptive fevers can be contracted by inoculation or by inhaling the air charged with the exhalations or the dust arising from the desiccated epidermis and secretions of the sick. The contagium might also be carried by fomites; that is, by articles contaminated by the sick: clothes, money, etc. There is an uninterrupted link from case to case, as a general rule. As to the origin of the first case, how, from its dormant or latent condition in the world outside the human organism, the germ of a contagious disease first found its expression in the first case, we are at a loss. The germ of a contagious disease, it would appear, makes use of the human organism as a culture ground for propagation and dissemination, *ad infinitum*, fully viable and potent in the exhalations of the sick—a small-pox case, for instance. This is not the case with infectious diseases.

About the meaning of infection the greatest confusion prevails. Some take the word to be synonymous with contagion and maintain that all wide-spreading and transportable diseases are contagious and infectious; thus using the terms indiscriminately. If this were so, further discussion would be useless. Laroche, too much impressed with certain analogies between

yellow fever and malarial fevers, such as their prevalence in the same season, their decline and cessation at the advent of cold, the non-contagiousness of both, restricted the term infection, for the needs of his cause, to the operation of morbid agencies of a local or domestic origin as is the case with malaria or with filthy localities, as jails, hospitals and ships.

Useless to say that we can not agree with this definition of infection as applicable to yellow fever. If there be local infection, can there not also be a transportable infection?

Allow me to propose the following definition, dropping the limitation of local origin: A mode of spread of diseases, as opposed to contagion, not from person to person, but from place to place, through contiguity of surfaces or to other places through and by objects not necessarily infected by the sick, but carrying the air, the infected conditions of the *locality* whence they are derived. So far we have no means of ascertaining the infection of objects. The only evidence of infection we possess is a well *diagnosed* case and the development of new cases. Let us not take the effect for the cause and conclude that the case which we see is the cause of infection of the locality or of the development of new cases as with small-pox. It is the reverse, as I shall attempt to prove. The infection of the locality or of objects is the cause of the cases. In the case of a contagious disease, the germ or cause of the disease uses the human organism as a culture ground for dissemination; in infection, the cause of spread is outside the human organism and does not make use of it. As examples of infection, I may cite tenia and trichina spiralis, which are not contagious, at least in the human family, and yet may be transported in tainted meat and infect whole families as through an apparent contagion. Malaria, although caused by a living organism, the plasmodium, will infect those who come within the infected area; say, to the help of those already affected, as through an apparent contagion; but this infection will not spread outside of its habitat, the swamp.

We think that the cause of yellow fever, as that of small-pox, is a living organism, because we know that nothing but life and its rapid generation could explain the spread and multiplication *ad infinitum* of these diseases. (We have a striking instance of this propagation in the marvelous spread of the pro-

toecus nivatina over the mountain snows of Washington Territory.) But it does not follow because the germs of contagious diseases use the human organism as a culture ground for propagation, that other germs which affect the human organism should do the same. Either they die out after starting the evolution of disturbances, through the chain of secondary causes which we call the course of the disease, or cause this disturbance through *some nervous centre* by their toxin or ptomains, as the venom of the scorpion or snake, or as in tetanus. Claude Bernard, experimenting on the nervous system, produced lesions of the liver identical to those of yellow fever. By introducing putrid matter in the veins of dogs, Lavacher, who was familiar with yellow fever, produced black vomit and black stools which were similar to those of yellow fever. Magendie made the same experiments and obtained similar results. Dr. Harrison, of New Orleans, says of these experiments: "No one, I think, can fail to be struck with the extraordinary resemblance of those symptoms and post-mortem lesions to those of yellow fever."*

Bacteriologists who are at the present time investigating the claims of Sanarelli should take note of this. This specialty needs more doubting Thomases among its adepts. Allow me a comparison. We differentiate between the stings of different insects, that of the bed-bug, of the itch, of the flea, the mosquito, the ant, and although these are different stings, which we might call specific, they have something in common, the reaction of our living tissues, the swelling, the redness, the itching and burning. We classify specific diseases by their course, the concurrence, predominance of symptoms, the epidemic coincidence; although the symptoms have much in common from the reaction of the same living organism. We may classify the stings of insects for the needs of our comparison. Among the contagious we place the itch, lice, ringworm diseases, because they use the human skin as a breeding ground. Among the endemic or domestic, the bed-bug, the flea and roach. Also we have the mild or infectious: the mosquito, the ant, the sandfly and other flies, wasps and so forth. They are living organisms affecting the human skin; yet some live upon and in it, others do not. It is a known fact also that insects injurious to

* Laroche, Vol. 2, p. 597.

plants, to animals and men have been transported from one country to another on the lines of travel and commerce.

I imagine the invisible cause of yellow fever to have been introduced into the West Indies from Africa, its cradle, with the slave trade. It found a suitable habitat in the ports, now in this, now in that; not extending into the interior on account of the antipodes. It was sometimes transferred to our latitudes in suitable seasons, disappeared with the advent of cold, rarely survived one of our winters. It is of a mild sort, as a swarm of ants; it is not contagious; it does not spread in the warmer rooms of the sick during the prevalence of cold weather, as does the itch or small-pox. Those affected by it, transferred away from its focus, will no more affect those around them than the victims of malaria, or of the scorpion or snake, or of a fire will communicate their infection or their burns to their neighbors in the hospital, but let the swarm of the invisible foes or the fire invade the area of the hospital, those in it will be affected the same as those who visited or lived in the original focus. But a brand might be carried and kindle a new focus. From the non-contagious nature of yellow fever, I also surmise that the cause of yellow fever will not more likely be found in the bodies of those who died from it than would the scorpion or snake be found in the bodies of those who die from their venom. It should be looked for in the infected area. At any rate, this cause is not in a condition to disseminate the disease outside of the body it has affected.

Now, to the argument of the non-contagiousness of yellow fever, which applies also to that of the plague and cholera. It is in the following question: Is yellow fever *more* or *less* contagious than small-pox? If we bear in mind the two sets of apparently contradictory facts in the mode of its spread we will be involved in a dilemma either way we answer. These two facts are: its rapid spread when once started from a given focus, more rapid than any contagious disease; and on the other hand, its non-contagiousness outside of the infected area. Is it a difference of degree or of kind? "A complaint contagious only under certain circumstances is not contagious at all. . . . If yellow fever is contagious," says Dr. Barton, "it is a law of the disease. This it must carry into all places and under all circumstances (like small-pox)."

If we take the ground that yellow fever might be less contagious than small-pox let us bear in mind its mode of spread. "Too rapid to depend on a cause of such limited power as contagion" (Laroche, p. 576). "Though sometimes the epidemic progression of the disease is slow, in other instances the spread is very rapid (from house to house, from block to block), too much so indeed to be ascribed to personal communication, direct or indirect. The degree of rapidity with which a febrile disease spreads is and must be proportionate with its power of infecting. No one can deny that the contagion of small-pox is much more active and indestructible than that of yellow fever (admitting the latter to be contagious). Yet in its progress through a city the march of the latter is tenfold more rapid than that of the former. In the space of a month yellow fever has often pervaded an entire community, which, by the unassisted action of contagion, small-pox would not overrun in a year" (Laroche, p. 556).

Is yellow fever, then, more contagious than small-pox? Yellow fever literature is filled with overwhelming evidence of its non-contagiousness. Read the chapters of Laroche. "Not communicated in hospitals, barracks; in ships, in the vicinity of infected localities; not produced by accumulation of patients; not communicated by fomites; by handling the sick and the dead and by dissection of the latter." The case of the Gomer, at Fort Barrancas (Joubert); that of the Rattlesnake, at Port Royal, 1824, and other instances too numerous to mention.

We, who have had the experience of the Charity Hospital of New Orleans, can give our testimony that during the localized epidemics of 1870, 1873, 1875 and others, hundreds of patients were sent from the infected districts to the hospital; were treated indiscriminately with other patients; were attended by non-immunes; autopsies performed (by Dr. A. B. Miles among others). No precautions were taken, yet who knew of any case contracted in the hospital during these years? (By the by, in 1873, numbers of cases of Asiatic cholera from a localized focus were treated likewise in the hospital with a like result. No case of contagion took place.)

In 1839 Dr. Warren Stone, of New Orleans, admitted in his hospital about three hundred men from Texas suffering from yellow fever. In no instance was the disease communicated to

any other patient or inmate of the hospital. Is not this the experience of all those who are acquainted with the history of our hospitals?

But, in 1878, after the hospital had been full of patients for weeks, when the area of the infection had reached the hospital, the epidemic becoming general, then, and only then, all the non-immunes took sick—Dr. Miles, the students, sisters, attendants and other patients, were stricken down like the inmates of any other establishment in the infected district.

If yellow fever were contagious would such facts repeat and repeat themselves—through several epidemics; not only here, but everywhere, in Philadelphia, New York, Charleston and in other places. “And while beyond the infected districts all this has been unattended with the most remote appearance of the propagation of the disease it has been found that in the very focus of infection, those exposed to the direct contact with the sick have not been more liable to the attack than other individuals not so exposed, but who, like them, breathed the infected atmosphere.”

I have studied a localized epidemic in the country, about five miles from Vicksburg, in 1878, and have seen this infection spread *over fields* as a prairie fire, radiating over a mile from the original focus, not excepting solitary homes far apart from one another within the area of infection, in spite of the closest seclusion practised by the panic-stricken inhabitants. (The Cushman case in my thesis at Paris, 1880.) Parties entering this area at a time when the disease had ceased for want of material were taken with the disease.

“We also see that exposure in ships *long* free from the fever and after the crew had been dismissed and no one was left on board to communicate disease has often been, even in temperate climates, the cause of the most concentrated and fatal form of malady.”

“In the case of the *Eclair*, while those who went on board took the disease with almost unerring certainty, it remains yet to be proved that those affected communicated the infection on shore. As Dr. Wilson remarks: ‘Nearly every man who joins a ship in such a condition has the prevailing disease sooner or later; but no number of persons taken from such a ship, laboring under the disease in any stage, or in any force, and placed in

a situation where the disease does not exist, though in a mass of healthy people, can excite it in a single instance.' It were futile to say that it possessed those contagious properties in the ship, but lost them the instant its subjects were removed a hundred yards from its source. Dr. Drake remarks that the rules of logic require the exclusion of all cases in which the disease is said to have been contracted by going on board of a ship or boat where there were yellow fever patients or by visiting a patient in a town affected with the fever, when it is epidemic; for the individual in these cases is exposed to the same atmosphere which may have produced the fever in the sick and it can not be told whether he contracted the fever from them or from entering the same localities which had occasioned it in them."

Dr. Hume writes in the *Charleston Medical Journal* in 1854, and he was a so-called contagionist: "There can be little doubt in the mind of the most non-contagious advocates that the transportation of an infected house from Havana to Charleston in August would be a dangerous experiment. The visitors to that house would be as liable to take the disease as the visitors to Havana. It contains the same air and the matter whatever it may be, which is capable of producing the disease. A healthy person residing in a healthy portion of the suburbs of Charleston visits a sick friend in the city, returns home and within a week takes the same disease. Can it be said that the disease was taken from the sick person or from the infected house? That the disease was contracted while there is evident; but *whether from person or place* is not certain." He concludes, after showing that this case having contracted the disease in an infected locality and being treated by non-immunes in a non-infected locality will not communicate his disease to the latter, that in the case of the introduction of yellow fever into a house the extension of the disease is produced through the infected air; that the air of the house not only infects those in the room with the patient, but those in other rooms, and even neighboring houses. The spreading of cases through a whole neighborhood can be explained on no other principle—even when no communication is held between neighbors, generally unknown to each other in large cities.

Another case in point: A priest is called to give spiritual con-

solation to a yellow fever patient; he remains by his bedside, say half an hour; within the week he is taken with a similar disease; he lives in a community of many non-immune priests; his case is the first case; apparently a clear case of contagion. Will the others who surround him in the same house take the disease? Not at all, as long as their locality remains uninfected through the extension of the nearest focus they run no danger; no matter how many of those who visit the infected localities might be affected; those who are not so exposed will not contract the disease from attending the patients.

Inoculation has been tried in yellow fever and always failed. "Physicians in inspecting the bodies of the dead have cut or otherwise injured themselves without bad effects, some have gone further and inoculated themselves with the blood, the serum and the black vomit; or have swallowed portions of this fluid without injurious results." A similar experiment by Dr. Valli, which cost him his life, does not disprove the foregoing; as he made his experiment in the hospital of Havana, situated within the limits of epidemic influence. Practise the same experiments in recognized contagious diseases and see the result. "Exemptions from attack in individuals exposed to contagious diseases constitute exceptions to a general rule, and can not therefore be placed on a parallel with the instances of exemption noticed in yellow fever which are universally encountered and form the rule: that the greater number of cases of the disease cited as occurring in consequence of or after exposure to direct contact or dissection were observed not beyond the sickly district but in the very focus of infection." Laroche says, p. 345: "For my part I can but believe that if a disease has been found by almost everybody, in every place and at all times, to be incommunicable out of infected districts and very few instances of a contrary kind are adduced, some error must have crept into the explanation of the origin of the latter; something has been omitted or overlooked."

During our late epidemic such a cause of error must have been frequent, when the practice of concealment was about general, through the fear of house quarantine, the fact that the locality was already infected being ignored.

If not contagious, how then can yellow fever be transported from an infected to a non-infected locality if not through and by

the sick or fomites—that is, materials, clothes, contaminated by the exhalations of the sick, as in the case of small-pox? I will answer in trunks generally, or in anything capable of enclosing the air, the conditions existing in an infected locality. Its power of spread is simply transplanted to another locality (many little “Ocean Springs” were at one time transplanted into New Orleans), where it will follow its laws. Not every spark from a fire will kindle another focus, but one may be sufficient. Patients sent to the hospitals from an infected district do not carry the infection with them, because their clothes are sufficiently aired. Neither does the doctor nor any one else. The enemy is in closed, unaired articles. The trunk, or box, which carries the infection might have been closed in the house of immunes at a distance from any sick; it might be accompanied or not by persons, be they immune or not. Necessarily these persons being sick or convalescent, or in the incubative stage, would indicate that they had come from an infected place. Their cases would be the indication, the precious indication, the label as it were, that their trunk contained the same air—that of the infected locality—by which and in which they themselves had been affected.

It has been said: “The ship is sick.” It can be said: The trunk is sick; treat it. The danger lies in enclosed articles from an infected place, not in persons however sick; not even in their dead bodies, as is proven at non-infected hospitals. The air of an infected locality enclosed in a coffin with a dead body conveys the danger; not the body.

That yellow fever has been transmitted by immunes has been ascertained. Dr. Brouardel made an investigation for the French government of the localized epidemic at Madrid in 1878. Its introduction was traced to two licensed soldiers who had arrived from Havana with their trunks. The first cases occurred in their immediate vicinity. They themselves were not nor had been sick for a long time; they were both immunes.

There is reason to believe that the germ of yellow fever is propagated along the ground, the streets, the vacant lots, the gardens, and even through wide fields, and require the support of surfaces: were it otherwise, were it suspended in the air, the least wind would shift it about quickly, along great distances, and new cases would appear simultaneously, mostly everywhere, which is not the case.

It has a power of self-propagation (without the need of the human organism as a breeding ground), as a spot of oil, a fire, an army with serried ranks. Very likely, the disease is contracted in most instances in stagnant air, in closed apartments and not in the open air or the wind. This is probably the reason it is ordinarily contracted at night (a pet theory of Dr. Murray).

As a rule, the establishment of one or more new foci from the original one is the exception, and occurs rather late. Last year, 1897, more foci were established at one time in New Orleans than ever before, due to the stampede from Ocean Springs on the 6th of September. It came rather late to involve the whole city before frost, and was of a character light enough not to create a real alarm among the people, and light enough in most cases not to be officially noticed by the Board of Health.

MEASURES TO PREVENT THE SPREAD OF YELLOW FEVER IN A PLACE WHEN ONCE INFECTED.—“ Nothing can resist the authority of facts, and the good sense of the public often takes the advance on the hesitations and sophisms of interest and science ” (Pariset, translated by Carpenter).

The people, unbiased in their observations, said “ it was in the air,” and ridiculed the house quarantine under which it chafed.

Mr. Odenheimer at a meeting of the Louisiana Board of Health said about this: “ If there is any truth in the principle of quarantine against outside places, it should be practised in our midst to prevent its spread (of yellow fever) from house to house.” Quarantine is all right—as far as the removal of effects and trunks from one place to another in an infected city; but a difference of distance (from Ocean Springs to New Orleans as from one house to another in the city) should call for a difference of treatment. The germ of yellow fever could never reach the city from Ocean Springs through contiguity of surface, but as it reaches one house from another, along the soil, as the facts prove, I fail to see what the house guard could do. The germ will pass under his feet and through the back lots to neighboring houses. If yellow fever is a very infectious and not a contagious disease, as I have attempted to prove, the measures which are so successful for the stamping out of small-pox and kindred diseases are bound to fail, I am sorry to say, if applied to yellow fever.

The disinfection of premises, in the course of an epidemic, is ridiculous. When the neighboring houses, the grounds, the streets around are infected, the disinfection, even if efficient and successful, would come to naught. The infection would reinvade the premises as a swarm of mosquitoes, as soon as the disinfection was over. Numerous examples of such failures are on record, notably the case on Grand Route St. John. Dr. Dabney cites others.

The late experiment has proven to all in the least *au courant* that the measures tried, especially the house quarantine, were signal failures; they were in their results vain, cruel and unjust, and the pretended claim of success should not go unchallenged.

These measures were successful in so far only as they minimized the number of official reports and caused the concealment of cases by the doctors on a large scale, and by the people, who preferred the risk incurred by lack of proper treatment to the risk of being quarantined. Many fatalities were clearly attributed to this cause and an amount of immeasurable anxiety.

Besides, the claim of success based on comparisons with the epidemic of 1878, or other epidemics, is not correct; because this one of 1897 was of the mildest type, as announced from the start, and at Ocean Springs and elsewhere, where the house guard practice was not in vogue. The mortality was less than 1 per cent., as I figured it with one of my confrères. The official figures were from 20 to 30 per cent., much higher than the actual fact, and thereby unduly increasing the alarm not only in the city but elsewhere. Deaths from yellow fever can not be concealed, although they are sometimes under other names, as well as cases which recover. It was the practice of many physicians to report only such cases as were almost beyond hope.

What then are we to do if, as we attempted to prove, yellow fever is not a contagious but an eminently infectious disease—that is, transmitted not from person to person, but from things to things, having a power of self-propagation outside of the human organism? Allow the fullest freedom to the individual, but not to the movement of his effects without complete disinfection. Treat the premises, the soil and all surfaces in the infected area. I would offer the following suggestions: (1) In case a patient having contracted yellow fever in another place is

found in our midst, notify the other place and get full information, disinfect all articles carried by the patient and his party, if any, his trunks and contents. Disinfect the whole house he is in, or any other he may have occupied. Meanwhile it might be well to keep visitors away from the premises and keep track of those who had been in the place; not from any danger apprehended from their cases developing elsewhere, but to know as soon as possible whether the patient (or rather the person) had carried the seeds of infection with him, and whether the seeds had taken root; for in that case, the danger of spread is great if the season be propitious. In November and December the danger is almost nil; before May it is not so great, but from June to November it is very great.

(2) In case a patient is found having lived in our midst a long time, long enough to be beyond any possible stage of incubation, the greatest effort should be exercised to trace his case to other cases or to other persons still well or immunes who might have brought the infection with their effects. The focus being located, the most strenuous efforts should be made to eradicate it. The confidence of the medical profession and of the people must be had in this emergency. If some are inconvenienced, they should gracefully bear the hardships for the benefit of a whole people.

The measures I propose would be these: Notify the people that a place is infected by flagging this first and one house; if more have patients, flag the four corners of the block, in order to apprise the people that a danger is incurred in visiting not only the houses with patients, but even the houses of the well—of immunes, for instance, in the infected area. The extent of the focus should be ascertained with the utmost diligence, and a block should be allowed from the furthest cases; because in the nearest block the infection might be present in the incubative stage. This area being ascertained should be corralled by a cordon of guards, not to quarantine any person, but only to prevent the removal of articles, especially trunks, closed packages, mail, furniture, groceries and merchandise generally from this focus to any other locality, unless through a disinfecting plant. The merchants within this area (this first and limited focus) could be compensated for their loss of business.

The people should be advised, even urged to depopulate the

focus for their own safety, through a camp of observation, as that conducted at Camp Perry by the Marine Hospital Service. Not that I believe they could carry infection by being taken sick in the midst of other healthy communities, their effects being disinfected; but to avoid the alarm which might follow from their cases. But, wherever invited and welcomed I would advise no detention or restriction, provided their trunks and effects were thoroughly disinfected. At Camp Perry these measures proved perfectly effective. Among the 1211 refugees, mostly from Jacksonville, who passed through the camp to undergo their ten days of observation, thirty-seven took sick with yellow fever, were treated in the fever camp, half a mile away, returned to the main camp when well, and were free to go wherever they pleased. Neither the observation camp nor the fever camp were infected (most of the employees being non-immunes) nor any place to which these refugees hid themselves. But thorough disinfection of the contents of their trunks and parcels had been practised from the moment of their arrival at the camp.

In this instance it would be prudent to disinfect even the wearing apparel. Now, what can be suggested to stamp out the infection from an established focus and prevent its spread to the neighborhood? Treat all surfaces within the premises and outside, to a block beyond, not leaving an inch of surface unattended to, cesspools, yards, gardens, fences, plants, surfaces under the steps of houses, the soil under the houses, etc.

The work must be thorough to be effective. If former means have failed try others. Some agent must be found to destroy that germ of yellow fever when we know where it is by the development of new cases. The soaking and sprinkling of streets and so forth with a strong solution of bichloride should be continued; but I believe that the physical agents, a certain degree of heat or cold, especially the latter, in the particular case of the yellow fever germ would have more penetrating power than any other agents, gaseous or liquid. Heat has already been applied, I believe successfully, and is practicable. Cold could be applied through the evaporation of liquid ammonia, which has also strong germicidal power itself. It could be applied by injecting the liquid in closed places, under the houses especially (all open spaces between the ground and basement being closed). It is

cheap and could be carried in tanks to the place to be disinfected. This disinfection should be carried on night and day. If found unsuccessful, if the focus continues to extend itself, if we are unaided by the community and can not ascertain the real extent of the focus and the establishment of others, it is time we should throw up our hands, hope for frost and stop bothering the people in vain. The epidemic like a general conflagration is beyond control.

Let us hope, after this late experience, that the people will come together and frame a law for their mutual protection against a new introduction of the pestilence into our country.

To obtain the necessary uniformity, permanency and efficiency, it seems evident that this law must be under the control of the national administration. To insure confidence, co-operation and good will generally, this law could be devised by and its execution be placed in the hands of a personnel chosen principally from the States whose interests are most at stake without discarding the training and experience of those already in the field.

To summarize the foregoing argument I shall propose the following resolutions:

WHEREAS, Yellow fever is infectious and not contagious, having a power of self-propagation outside of the human organism, and

WHEREAS, If still held by some to be contagious outside of infected places it could be so only as a rare and questionable exception to the rule.

Resolved, That the house quarantine or quarantine of persons is useless, vain, cruel and unjust, and, therefore, unwarranted at least in infected localities.

Resolved further, That the main object of sanitation in yellow fever should be restricted to the disinfection of all infected or suspected localities and objects, especially such objects as are intended to be moved from an infected to a non-infected locality, such as trunks and so forth.

AROMATIC TOXINS.

BY JOHN C. MCKOWEN, M. D., NEW ORLEANS.

[CONCLUDED FROM JUNE, JULY AND AUGUST NUMBERS.]

I consider that all the deaths produced by so-called uremia are due to aromatic toxins and to creatin and creatinin, which are nitrogenous derivatives of the proteids. As a proof that sup-

pression of urine through steatosis or congestion of kidneys is caused by the bacillus icteroides, I quote the following case of Pietro Provenzano, afflicted with aromatic intoxication.

Dr. T. F. Richardson found this case in his ward at the Charity Hospital here, and after diagnosing it as aromatic intoxication, kindly handed it over to me for treatment and cure.

In addition to the symptoms which Walker and I had in common, Provenzano had a complication of a severe inflammation of left kidney. Analysis of urine at beginning gave leucocytes, hyalin casts, urates and bacteria, specific gravity 1.016, much sediment and purulence. On palpation kidney was enlarged and very tender to pressure. Salol was given in addition to the remedies already cited for aromatic intoxication, and, after twenty-one days, examination of urine gave no leucocytes, no urates and no hyalin casts, but phosphates and bacteria in small quantities existed. No pains on pressure of left loin and abdomen, and patient recovered completely from aromatic intoxication after treatment of twenty-eight days and was discharged from hospital, as he was anxious to resume work. The attack of intoxication was severe and characteristic, but yielded readily, with the complication of nephritis, to remedies, proving that intoxication did not cause kidney trouble, as right kidney was not affected, and that nephritis, complicated with intoxication, can be easily cured. This case showed me that salol might be used to advantage during yellow fever to prevent a too rapid degeneration of kidneys through congestion and steatosis, caused by bacillus icteroides. Since the total, or almost total, suppression of urine through steatosis or congestion keeps all the aromatic toxins in blood stream, into which they pass from intestinal contents through enteric hemorrhage caused by icteroides, and since these toxins form recruits more deadly than the bacilli icteroides themselves, every remedy ought to be tried against degeneration of kidneys. No bacilli of Sanarelli have been found inside the intestinal canal as yet, and we must look on aromatic toxins as the only assistants of the icteroides in causing death in yellow fever until further discoveries disprove this.

We know that if urea be injected freely into the blood of animals, it does not cause uremia when it is freely discharged by the kidneys. My master, Voit, called attention to the fact

that when water is withheld and the excretion of urea is hampered, uremic symptoms appear, and we of his laboratory considered this an argument in favor of uremia being the product of urea alone. We forgot to consider that withholding water prevented the excretion of other things than urea, and especially the aromatic toxins, skatol, cresol, indol and phenol were kept in blood stream.

Landois applied three of the nitrogenous derivatives of the proteids, creatin, creatinin and urea to the surface of the brain in animals and produced convulsions by applying creatin and creatinin, while urea had no effect whatever. Frerichs attributed the symptoms of uremia to an ammonemia from decomposition of the urea into carbonate of ammonium; but this has been disproved. The researches of Bouchard, among others, go to show that the several constituents of urine have different toxic effects and that it is not always the same poison which causes the very various symptoms known as uremic.

“The acute symptoms of uremia common in Bright’s disease are convulsions, during which respiration is hurried, the pulse is small and quick, and temperature is variable. After convulsion comes drowsiness, gradually increasing to stupor and complete unconsciousness; after or before convulsions uremic amaurosis occurs often, also deafness more rarely, and these two sensory paralyses may disappear.

“The chronic symptoms of uremia are headache, twitching of the muscles without loss of consciousness, recurrent attacks of dyspnea (catching breath), anxiety and restlessness or somnolence and stupor, itching of the skin, vomiting and diarrhea. The latter is sometimes associated with decided lesions in the intestinal canals. Dyspnea sometimes resembles spasmodic asthma and comes on at night, sometimes there is stridulous breathing exactly resembling laryngeal obstruction, or tracheal stenosis occurs.”

This list of characteristic symptoms, except convulsions, occurred to Walker or myself, and we had no suppression of urine at any time during our sickness. My brother and Langfelder had the same symptoms in part, as their attacks were lighter.

I have purposely taken this list of symptoms from the “Practice of Medicine” of Dr. Frederick Taylor, physician to Guy’s Hospital, 4th Edition, 1895, for Dr. Taylor, a shrewd

observer, refuses to accept urea as the cause of uremia, and says expressly, page 747: "The cause of uremia is now generally held to be the retention in the blood and tissues of some of the excrementitious matters that ought either themselves or in some changed form to be excreted by the kidneys; although it is quite unknown whether it is one substance alone, and if so, which of the many urinary [*sic*] compounds and derivatives. Analyses of the blood in uremia have not generally shown a large proportion of urea."

Dr. Taylor excludes urea and describes the effects of aromatic toxins without being able to name them.

I have reasons for thinking that uremia, purpura, appendicitis, gout, rheumatism and the Cheyne-Stokes breathing, as well as other diseases, come from the aromatic toxins retained in the blood and tissues or absorbed in excessive quantities into blood stream.

Bouchard, among others, reasons that there are several poisons in urine and that the same poison does not and can not produce all the symptoms known as uremic. I had concluded that each aromatic toxin or a special combination of toxins plays a special role.

I ought to add here that the dyspnea coming on at night and the stridulous breathing have often occurred to me and they always yielded to a dose of sodium sulphate, showing that they come from aromatic toxins in the blood which conjugate with sodium sulphate and are excreted by urine.

[Bouchard thinks he has succeeded in showing that normal urine contains at least seven toxic substances—a diuretic, a narcotic, one that produces salivation, one that contracts the pupil, one that lowers the temperature and two which produce convulsions—one of these last is organic and the other is a mineral (potassium). All these toxic substances are eliminated from normal blood stream by kidneys. Bouchard does not give the chemical formulas of these poisons, thus leaving doubts. He thinks he has found experimentally that the normal toxicity of blood stream can be expressed thus: One kilogram of normal blood can not kill or seriously injure thirteen kilograms of living matter, but one kilogram of normal blood contains in its plasma, and only in its plasma, enough poison to kill more than 1250 grams of living matter, and every man would die toxemic who possessed in his blood stream ten times as much poison as it contains in normal condition. According to Bouchard the plasma of the blood is only slightly toxic, but its cells contain poison, like all the cells of the body, and these toxic constituents of each cell can be set at liberty by disassimilation, or by the destruction of the cell itself. These poisons, which are contained in abundance in the cells of all the tissues, are of two kinds—there are organic substances resulting from disassimilation and secretion and mineral substances, at the head of which we must place potassium.]

Amongst the products of secretion, bile, which flows periodically into the alimentary canal, contains poisons, and derives its toxicity much more from its coloring matter than from the biliary salts. But normally the bile that is secreted is not very dangerous, because its coloring matter and its salts are for the most part precipitated in the alimentary canal. The alimentary canal is an important source of poisons resulting from putrefaction. Alkaloids exist in fecal matter of several kinds, and when one kind of alkaloid predominates in the intestines it predominates also in the urine. Bouchard thinks he has established the toxicity of fecal matter by chemical analysis, and has shown that it is due to potash, ammonia and to other substances which he could not define. Bouchard has also proven by experiment that intestinal antiseptic treatment, which causes the alkaloids to disappear from fecal matter and urine, diminishes the toxicity of both.

Bouchard sums up by saying:

“The healthy man is both a receptacle and a laboratory of poisons. In fact he receives them in his food, he creates them by disassimilation and he forms them in his secretions. The human body is the theatre of the toxic elaborations carried on by the normal microbes, which constantly inhabit the alimentary canal, and yet man is not poisoned. His liver protects him by arresting on their way, before they pass into the general circulation, the poisons brought from the intestines by the portal vein, in order to neutralize them or throw them back into the intestines. Then the excretory system expels the poisons which are in circulation. I have demonstrated it experimentally, taking the natural product of an excretion and studying its toxicity by injecting it into the veins of an animal.”

This quotation and all the other opinions of Bouchard are taken from the last chapter of his “Lectures on Auto-intoxication in Disease,” Paris, 1894.

Bouchard further thinks the toxicity of urine can be attributed $\frac{3}{10}$ to coloring matter, $\frac{2}{10}$ to extractive matter and $\frac{1}{10}$ or $\frac{5}{10}$ to potassium.

On page 286 Bouchard notes the dilatation of the stomach during intoxication, but he attributes the intoxication to it, instead of attributing dilatation to intoxication by poisoning pneumogastric nerve.

On page 227 he uses these words: “If all the bile secreted in eight hours were introduced suddenly into the blood, we should see fatal effects produced immediately.”

Against the assertion of Bouchard, which attributes to coloring matter or pigment of urine three-tenths of its toxicity, I quote the following statement of Professor Starling, joint lecturer on physiology at Guy's Hospital, London, made in September, 1895, a year or more after Bouchard's statements:

“The bile pigments are the products of disintegration of the hemoglobin of the blood. They play no further part in the body, and are excreted with the feces in a slightly altered form.”

There is nothing poisonous in disintegrated hemoglobin it would seem, from these words of Starling, and it is clear that other substances were mixed with the pigments which Bouchard found poisonous. Had Bouchard given chemical formulas for all his pigments, toxins and other substances mentioned in his book, he would have gained greater credence and would have put his assertions on the scientific basis demanded by all chemical-physiological laboratories of to-day. When a worker in these laboratories claims to have found a new substance of any kind his fellow-workers ask for the chemical formula of it, and when he can not give it he is ironically requested to go and find it and then he can talk and be believed.

Bouchard has contributed some interesting facts and observations to intoxication (auto-intoxication), but there is such a want of sequence and so many contradictions in his deductions and facts that we feel the necessity of having all his facts and deductions controlled by more exact observers.

He forgets that the end products of digestion go into the bladder, where

they are harmless, it matters not how poisonous they might be; he forgets that these end products have undergone chemical changes in blood stream and by such changes were rendered end products.

He asserts that the liver protects man from toxins by neutralizing them and throwing them all back into the intestines to be excreted. In the same breath he asserts that toxins or alkaloids exist in fecal matter of several kinds, and when one kind predominates in the intestines it predominates also in the urine. He never pretends to explain how this predominating toxin or alkaloid traveled from the fecal matter to the urine.

He is ignorant of the venous anastomoses inside the pelvis with their outlet into the internal iliac veins by which toxins can enter the general blood stream without passing by the liver. He ignores that the lower parts of the colon ascendens, the colon descendens and rectum are the most important parts for the absorption of all the liquids extracted by the intestines, as these same liquids can furnish toxins to healthy blood stream. He ignores the important role played by simple sulphates in forming conjugated sulphates in blood stream, and thus neutralizing the toxins which can repose in the bladder for a long time as innocuous conjugated sulphates. I repeat that the normal bladder is not an absorbing vessel, and can hold poisonous end products of digestion without danger, while the normal colon and rectum have remarkably developed functions for absorption, so that such poisons reposing in them are dangerous.]

As the fact of pelvic venous anastomoses is a very important factor in this absorption process, I quote Quain-Hoffman, *Anatomie*, II Band, S. 996.

“Saemmtliche Geflechte der Beckenhoehle stehen unter einander in Verbindung und bilden so zusammen ein grosses Gefaessnetz, dessen Blut nach den verschiedensten seiten hin abflüsse hat, sich aber vorzugsweise in die innere Hueftblutader und in die Pfortader ergiesst.”

“Or all the venous circulations of the pelvis are mingled with one another in such a way as to form a large net-work of anastomoses, so that venous blood flows away from it in every direction, and this flow takes place especially in the internal iliac veins and in the portal vein.”

I consider this anatomy the best of all authorities, and it puts the internal iliac veins before the portal in the work of transporting aromatic toxins from the colon and distributing them into the animal economy directly through normal blood stream. That carcinomatous poison is carried from a rectal or anal carcinoma to the liver, and infects it, is due to partial portal circulation of the blood in colon.

This most complete, precise and trustworthy of anatomies needs no corroboration, but to convince myself that there could be no mistake, I made an injection of the venous circulations of the pelvis and found that the venous plexus leading into the pelvic veins and carrying blood and absorptions from colon

ascendens, colon descendens, sigmoid flexure and rectum sends more blood and absorptions into the internal iliac veins than into the portal vein.

Proteids are found in all protoplasms, and especially in tissues where growth is actively going on. They can not be built up in the body of an animal from simpler compounds as in the body of a plant which forms proteids out of salts of nitrogen and ammonia together with carbon and water that it derives from the atmosphere. The animal can obtain his proteids only through foods, which are broken down and oxidized to form $C O_2$, water and urea. When the urea leaves the body it is converted by ferment action into ammonium carbonate, and from these three products of animal metabolism, $C O_2$, water and ammonia, the plant recommences the laborious task of building up the proteids again. When proteids are treated with baryta water, they are broken up in the formation of various amido-acids belonging to both the fatty and aromatic series; so that a proteid may be roughly regarded as a combination of fatty and aromatic radicals, the nitrogenous amido radical ($N H_2$) being interpolated in many of its constituent molecules. Thus, when a proteid is broken up in the human body, or by the action of any living organisms (organized ferments), it may give rise to a fatty moiety and to a nitrogenous moiety (urea), or to a fatty half and an aromatic half. An example of this last change is furnished by the action of the pancreatic juice on proteids. Beyond these very general conceptions, we know very little about the constitution of these bodies. Research into their constitution has been aided by the discovery that it is possible to obtain them in a crystalline state.

Of the fatty acids butyric and acetic are looked on as poisonous; of the nitrogenous derivations of proteids considered poisonous we have leucin, tyrosin, creatin and creatinin, and the two latter produce the convulsions of so-called uremic poisoning. The aromatic poisons known are phenol, indol, cresol, skatol and ammonium valerianate.

Of the gases sulphuretted hydrogen is probably the most poisonous. All these enter the human body through foods, which means to say by the intestinal canal, and we must look to this canal, and especially to the lower part of it, as the gateway for those poisons which can produce so-called uremia.

When these various substances reach the bladder they are innocuous, and all the harm they can or do perform has been done from the time they were absorbed from intestinal canal until they reach their haven of exit—the bladder, through the kidneys.

From now on the attention of all interested in the further growth and development of medicine will be devoted mainly to the study of the lower intestinal contents, their chemical changes, their toxic or benign qualities, how they enter blood stream and what effects they cause to nerves, tissues and organs.

Urea is the end product of the metabolism of the proteids in the human body as uric acid is the end product of proteidic metabolism in the bodies of birds.

It appears that urea is formed in the liver and not in the kidneys, which take the urea out of the general blood stream and turn it into the urinary tubules, which send it on to the bladder as a harmless excrement.

We need trouble ourselves no more about urea, but must devote all our attention to the immediate precursors of urea and seek in them or their products or forerunners the toxins so dangerous to human life.

The possible precursors of urea are leucin, glycine, taurine, creatin and creatinin, and to these nitrogenous derivatives of the proteids and to their possible changes in the human body we should give the attention which physiological chemists have given until now to urea and to other constituents of urine.

The contents of the bladder are really the end products of proteidic metabolism, and can furnish no more sustenance or poison to the human body, whereas the fecal matter in intestines furnishes sustenance or poisons, on account of the absorptive qualities of membrane lining lower intestine, until this fecal matter has left the anus by excretion.

Urobilin gives a definite spectrum with an absorption band at Fraunhofer's line F, which is darkened by the addition of acids to the urine and caused to disappear by caustic soda or potash. Normal urine, however, shows no absorption bands, so that it can only contain a precursor of urobilin (a chromogen) and not urobilin itself.

Since the various pigments and their modifications play important diagnostic roles in aromatic intoxications, I give the following explanation and formulas:

The chemical formula $C_{32} H_{40} N_4 O_7$ for urobilin and stercobilin when compared with the formula $C_{16} H_{18} N_2 O_3$ for bilirubin and with $C_{16} H_{18} N_2 O_4$ for biliverdin would show that stercobilin or urobilin is composed of bilirubin and biliverdin + H_4 . Then comes the question, after reading what Herter and Rolleston and Garrod say, whether it be possible to form stercobilin out of bilirubin and biliverdin in lower part of ileum through the action of the colon bacillus which might furnish in some way the necessary H_4 .

Stercobilin or urobilin furnishes purple ecchymoses or patches, according to Buckmaster and Garrod, and yellow fever furnishes with its characteristic golden yellow color also purple ecchymoses, in great contrast to the livid green ecchymoses of the bile pigments, bilirubin and biliverdin. A mixture of these two would be greenish, more or less, whereas the addition of H_4 seems to remove the greenish and substitute a purplish hue. Is this H_4 added in the intestine and in the blood also when the colon bacillus or its products enter the blood, or in intestines only? The pigments are probably all derived from the disintegration of hemoglobin and the action of the liver. The affinity of urobilin with the blood and bile pigments is shown by the fact that a similar substance, hydrobilirubin (or stercobilin) may be formed by the action of sodium amalgam on bile pigments or on hematin. Normal urine, however, has no absorption bands showing that a chromogen which can become urobilin under certain circumstances is the coloring matter of normal urine.

I think there can be no doubt that stercobilin is formed from a mixture of the two bile pigments bilirubin and biliverdin by the addition of sodium amalgam or by the action of colon bacillus or by any substance which can furnish H_4 to the mixture of the two bile pigments, and the change of bile pigments into stercobilin commences in lower ileum and becomes complete in colon near cecal valve.

As the Italian peasant's voluminous diet of carbohydrates and of milk, with the consequent distention of colon and frequent defecations daily on account of continual motion in the open air, prevents any aromatic intoxication until old age confines him to the house and produces lesions of the intestines, we might hope to prevent aromatic intoxications among dwellers of

cities by a diet of carbohydrates and milk. But such a diet would only produce fat and do more harm than good. Those who are once accustomed to the use of concentrated foods will persist in using them, and we must look to other means to impede aromatic intoxications among dwellers in cities, who can not have the continual motion of peasants in country air. We may as well expect dwellers in cities to give up electric cars and go back to mule traction as expect them to forsake concentrated foods for a pure carbohydrate diet.

In New Orleans and other American cities, drug stores give passers-by an opportunity to wash out the aromatic toxins with sodium sulphate drinks in the shape of artificial Vichy waters, and the increasing use in Europe of natural mineral waters containing sodium sulphate does the same good service to the multitude of sufferers from aromatic intoxication in a greater or less degree. The increasing numbers of consumers of concentrated foods in all civilized countries find themselves much better after using waters containing sodium sulphate, without taking any thought of their chemical constituents, and they express the feeling of relief produced by such waters with the words, "These waters make us feel lighter."

The mild forms of aromatic intoxication are especially common in New Orleans and in the Southern States generally.

Since Merck says that skatol can be produced synthetically by the fusion of egg albumin with potassium hydrate [2 K O H], and since Feltz and Ritter consider the potassium salts to be more poisonous than any other known constituents of the aromatic toxins, and since potassium salts cause a wasting away of the tissues, I think we can attribute some of the wasting of the tissues to 2 K O H in skatol, but we can not attribute the many different nervous disorders to any particular toxin or to any particular combination of toxins at the present moment. I hope that these problems may be worked out in the near future by physiological chemists.

As I have given the chemical formulas for skatol, indol and phenol, I add that of cresol.

Meta Cresol.—Meta cresylic acid, meta-oxytoluene, meta-methyl-phenol, derived from coal tar by fractional distillation or from thymol by phosphorus pentoxide and caustic potash: $C_7 H_8 O = C_6 H_4 O H C H_3$; yellowish-red liquor; phenol-

like odor; specific gravity, 1.0498 at 0° centigrade; soluble in alcohol, ether and chloroform; boils at 202.7° C.; disinfectant, antiseptic.

Ortho Cresol.—Ortho cresylic acid; ortho-oxytoluene, ortho-methyl-phenol; homologue of phenol from coal tar by fractional distillation = $C_7 H_8 O = C_6 H_4 OH. CH_3$; white crystals, boils 188° C., disinfectant.

CONCLUSION.

We have in cases of aromatic intoxication at least three principal toxins, each of which, or a combination of toxins, poisons a distinct nerve centre.

First toxin causes irregularities by disturbing the thermotaxis centre (cortex cerebri) or thermogenesis centre (nucleus caudatus).

Second toxin causes irregularities in the number of respirations, causes dilatation of stomach and laryngeal disturbances by poisoning the pneumogastric nerve and its ramus recurrens.

Third toxin produces irregularities in pulse by disturbing cardiac nerve centre.

The want of correlation between temperature, pulse-beats and respirations is a most prominent characteristic of aromatic intoxication. I mean by correlation, that in fevers an increased temperature coincides with increased number of pulse-beats and with increased number of respirations as a rule. In cases of fever complicated with aromatic intoxication temperature may go down while number of pulse-beats and number of respirations may increase or vice versa so that any combination may occur without correlation. The same want of correlation exists in uncomplicated cases of aromatic intoxication.

In publishing this study of a new and well defined disease, of which I have seen many typical examples here in New Orleans, I have left the beaten road and have trodden boldly in a new path leading into the newest and most difficult forms of medical, bacteriological, chemical and biological sciences. I disclaim all dogmatism and shall receive thankfully any suggestions offered in the scientific spirit which has prompted me to try and widen the field of medical vision for the benefit of humanity and science.

I thank my New Orleans colleagues, young and old, for their

prompt recognition of this new disease, aromatic intoxication ; for calling my attention to the cases found in their private practice, and for putting into my hands, to be cured, the cases found in their wards in a public hospital.

A CASE OF RAYNAUD'S DISEASE.

BY S. P. DELAUP, B. S., M. D., VISITING SURGEON TO CHARITY HOSPITAL.

The case which is reported in this paper presented several interesting features of this rare disease, among others, its occurrence in a middle-aged man not specially neuropathic, and the frequently recurring attacks necessitating six distinct amputations.

F. J., an octroon and native of Louisiana, was 32 years of age at the time of his first admission to the Charity Hospital, September 13, 1893. He gave no history of hereditary disease and stated that previous to his present illness he had always enjoyed excellent health with the exception of occasional light attacks of malaria. He was tall, slender and anemic, and though apparently a good subject for tuberculosis, no physical sign of that disease could be detected. His blood and sputum were not examined. He denied having used alcohol or having had venereal disease. On examination I noticed a bluish discoloration of the middle toe of the right foot, which soon extended to the other toes. The foot was benumbed, very painful, and slightly edematous. The paroxysms of pain, attended with coldness of the affected part, generally lasted about half an hour and recurred periodically. His sleep was broken and restless, otherwise between the paroxysms he would appear comparatively well and comfortable. His appetite was fairly good. An examination of the urine revealed nothing abnormal, of the heart and circulation was likewise negative. The pulse at the ankle was easily found and felt normal. There was persistent exaggeration of the plantar and patellar reflexes. No history of exposure to cold or wet could be elicited, nor had he ever had chilblains. No other part of the body was affected. For about two weeks he continued to suffer, until the edema of the foot subsided, the discoloration disappeared, leaving the toes black, shriveled and mummified, separated from the healthy tissues by

a distinct line of demarcation. The great toe had escaped and had a perfectly healthy appearance. The four outer toes were removed by a modified Lisfranc operation, allowing the big toe to remain intact. In a few days the big toe became bluish, cold and painful; the disintegration process went on for some time until October 17, 1893, when a Chopart amputation with section of the tendo Achillis was performed.

The stump suppurred slightly at first, and the patient was discharged well on November 17. From October 6 till October 30 the temperature ranged from 100 deg. to 99 deg. F. The pulse rate always was a little rapid, about 90 per minute. On the evening of the 17th it was 110, and increased to 140 the next morning, though the temperature was just 100 deg. F. From the 18th to the 26th the pulse gradually dropped to its normal rate. About one year later he again presented himself at the Charity Hospital with a recurrence of the disease in the left foot. In this attack the cyanosis was limited to the toes, which were of a dusky purple color and quite anesthetic. The rest of the foot presented a mottled appearance, with diminished sensation.

The paroxysms of pain were so frequent and intense that he begged for an early operation. To relieve him, a Pirogoff operation was performed. The stump suppurred badly, the heel flaps becoming gangrenous. The limb was reamputated at the lower third of the leg, and the patient discharged within twenty days, the wound having healed by primary union.

Again, in April, 1897, he returned for treatment. The disease manifested itself now in the stump of the right extremity, the Chopart amputation stump. Owing to the fact that he was admitted in a different ward, in Dr. W. S. Bickham's service and that I heard of his return only after the subsequent operation, I am unable to give a full and exact description of the condition of the affected stump on admission. I was informed however, that the entire end of the right extremity, especially the anterior aspect of the stump, was discolored and very painful. A disarticulation at the knee.

A Stephen-Smith operation was performed, and the patient was discharged well a few weeks later.

On March 8, 1898, the patient was again admitted to the Charity Hospital. He now presented a recurrence of the disease

in the extremity of the left stump, as evidenced by the cyanosis, coldness, pain, and subjective sensation of numbness and tingling. The initial stage of asphyxia, with local hyperesthesia, slight rise of temperature, and throbbing pain was well marked. A gradual shading off into the natural flesh color was clearly discerned. The patient moaned and groaned incessantly day and night. The pain was continuous and most excruciating, and he found no relief in the free use of opiates. Not the faintest discomfort was experienced in the right stump; the skin over it was perfectly loose, well nourished and of normal sensibility. To relieve his intense suffering, the affected part was removed before any line of demarcation was formed, by an amputation at the upper third of the leg. The stump healed rapidly and by primary union, without any constitutional disturbance. All his symptoms were relieved and in two weeks he was able to leave the hospital.

Although a great deal has been written upon the subject of symmetrical gangrene since Raynaud published his observations, in 1862, and close and careful observers have given the subject considerable attention and study, our knowledge to-day of all the features of the disease is hardly any more advanced than it was at the time of Raynaud's writing. The course of the disease is very irregular, gangrene being but the last stage of a series of phenomena.

When clinically complete, the affection is characterized first by local syncope, then local asphyxia, and finally gangrene, this last symptom being the essential feature according to Raynaud. Local syncope is characterized by pallor and lividity of the skin. Following the slightest exposure, at times without any appreciable cause, one or more digits become bluish, exsanguinated; they suddenly grow cold and lose their sensibility. Local asphyxia follows or accompanies the syncope, there is then noted cyanosis, edema, and pain with cutaneous anesthesia. If the attack stop here, reaction sets in and the cyanosed areas resume their normal condition. If the congestion persists, then dry gangrene follows with an increased burning pain and loss of tactile sensation.

Whether the mortification is brought about by a vasomotor trouble or obliterating endarteritis is difficult to say, and the information furnished by such few autopsy records as have been published

throw but little light, if any, on the subject. The causes of gangrene are many, but in one way or another they consist mostly of obstruction or an arrest of the circulation.

So far as I can gather from the literature, Raynaud's disease may complicate many affections of the central nervous system, chronic affections of the brain and spinal cord, hydrocephalus, syringomyelia, locomotor ataxia, epilepsy, etc. In Johns Hopkins' Report, Vol. III, 1890, Dr. Thomas reports a case of a man in whom the epileptic attacks occurred only during the manifestations of Raynaud's disease.

Perhaps the most frequent disorder with which it is associated is hysteria. Raynaud's disease is not at all uncommon in asylum cases, as noted by Southey (*Trans. Path. Society*, London, XXXVIII, 1897). Some writers on the subject report neuritis as the predominating neurosis, while others found general endarteritis. Debove, Dieulafoy, Jacobi, and others, have shown that symmetrical gangrene is often observed in conjunction with Bright's disease.

It is evident that we are dealing with a subject of the greatest import, and the more we reflect the more do we, on account of the complexity of the symptoms, realize the difficulty of the subject. One thing, however, is clearly shown, and that is the necessity of carefully examining the small arteries of the peripheral parts.

In an elaborate and interesting article published in the *New York Medical Journal*, 1891, Vol. 53, Jacobi calls our attention to the differential diagnosis of endarteritis and Raynaud's disease, and relates an interesting case of mistaken diagnosis:

A man, aged 42, consulted Dr. Jacobi first in December, 1884, on account of a numbness and coldness of the fingers. His family history was excellent; his previous history presented nothing noteworthy. That night he had intense pains in the fingers of both hands, and the following morning they appeared swollen and purple. The pulsation of the radial and the ulnar arteries at the wrist was normal in every particular. Heart was normal. The urine was repeatedly examined and always with the same results.

In two weeks the necrosis extended through the skin, and black, circumscribed sloughs were formed. From the history and from the symptoms present at the time of the examination

Raynaud's disease was diagnosed. Nine months after the condition was as follows: All the sloughs have disappeared, leaving white scars. The entire third phalanx of the left medius is gone, the fingers are still cold and purplish, arteries of the forearm normal, no pain. On January 29, 1885, the patient complains of headaches and various dyspeptic disturbances. He gives a history of several very slight transitory aphasic attacks. An examination of the urine resulted as follows: high color; specific gravity 1.010; albumin; kidney epithelia; casts, hyalin and granular. The further history of the case can be told in a few words; it was that of a chronic interstitial nephritis, without any unusual complications. In January, 1886, examination of the patient reveals hypertrophy of the left ventricle, high tension of the arteries, pulse incompressible. In February, 1888, an attack of apoplexy, which resulted in coma and death in four hours.

Syphilis, being largely a disease of the vascular system, is one of the causes of endocarditis. I here mention Klotz' case in support of this proposition.

The patient was a man 37 years of age. He was infected with syphilis ten years prior to coming under observation. He gives a clear subsequent syphilitic history, having been afflicted with various manifestations during the three years following exposure. Since that time he has been fairly well. About ten days prior to his first visit he noticed that his right hand was cold and swollen, the tips of the fingers having a bluish color and a mottled appearance. A few days later the left hand became similarly affected. Severe pains with burning and tingling sensation in both hands were experienced. Pulsation is well marked in the radial and ulnar arteries of both hands. The heart and kidneys are normal. Local condition and general appearance have considerably improved under anti-syphilitic treatment. One month later the fingers were neither swollen nor painful, but the ends are still hard with necrosed places on each. Patient's condition improves still more by a stay at Hot Springs, Ark. After a year's treatment hands have normal appearance, but patient still complains of their getting cold very easily; otherwise they are normal.

Commenting on these cases Jacobi states that: "From a consideration of various data adduced from the nephritic as well as

from the syphilitic cases, we are unavoidably forced to the conclusion that those who admit that an affection of the small arteries, be this an arteritis obliterans or other change, does produce a similar clinical picture to that found in Raynaud's disease, therein are right, but that these same authors are wrong when they contend that a differential diagnosis between the two affections can always be made."

Hare's System of Therapeutics and Osler's Practice of Medicine both give as a remarkable concomitant symptom, hemoglobinuria, which may develop during an attack or may take the place of an outbreak. A careful review of the accumulated records makes it painfully evident that any attempt at a systematic arrangement or lucid presentation of characterizing and essential features based upon an analysis of these recorded cases must prove very unsatisfactory; for, barring the unity of the majority of reports upon the one dominant phase, *i. e.*, symmetrical gangrene, we find detailed the evident diversity of symptoms together with the most incompatible and antagonistic conditions. In support of this assertion by facts, we will briefly summarize from the literature, in a general way, the cardinal features as observed during the life of the patient. As to sensory symptoms there is noted: pain of varying intensity and duration, generally severe, continuous in some, paroxysmal in others, often localized, sometimes general, affecting the integument only or extending to the muscles and bones, not limited to special nerves in some cases; anesthesia recorded in many cases, not mentioned in others, whenever noted it invariably resulted subsequently to the disappearance of pain or hyperesthesia of the affected parts. Vasomotor disturbances of various degrees are recorded in all cases, as well as symptoms pointing to an involvement of the sympathetic. Such are the varied complex symptoms found associated with the pathogenesis of the disease.

The theory of arteriole spasm is certainly the one that is most in accordance with the clinical phenomena. It has been noted that the disease is most prevalent in females and in the young, *i. e.*, in those whose vasomotor system is most impressible.

Raynaud believed that all three stages were due to perverted innervation of the arterioles. Other writers, while they allow

that arterial spasm might account for the white fingers, do not believe that such spasm could be sufficient to produce gangrene, and therefore they think that the trouble is a tropho-neurosis or an impairment of the nutritive functions of the cells themselves irrespective of the arterial supply.

Weiss thinks that the local asphyxia is due to a spasm of the veins of the part.

Besides the already mentioned causes which might provoke manifestations of symmetrical gangrene, we must not forget neuritis, injury or traumatism of any kind, frost bites or exposure to cold, and even heredity.

Goldschmidt describes a case in which gangrene was associated with scleroderma. On the other hand local syncope not infrequently accompanies attacks of paroxysmal hemoglobinuria.

Hutchinson advanced the proposition that a syphilitic arteritis may begin in the small arteries of the fingers and ascend, the radial pulsation being generally lost after the second attack. He reports a case in corroboration of this view.

After a critical study of Raynaud's disease Sturmdorf arrives at the following conclusion: "Raynaud's disease, if it has any existence, can not be diagnosticated during life, for, admitting the possibility of excluding all other conditions capable of producing gangrene, we must yet exclude this form of endarteritis, whose presence could be demonstrated only on the post-mortem table, and whose absence is a *sine qua non* to the acceptance of Raynaud's disease in the sense of the author's conception. Thus we see that the acceptance or the rejection of Raynaud's propositions must rest entirely upon negative evidence of all nature of post-mortem proof of the absence of all anatomic changes explanatory of the gangrene, thus proving beyond a doubt the functional nature of the disorder, and it must be in this direction only that corroborative evidence should be sought and accumulated before this condition can be established as entirely justifying Raynaud's deductions and our acceptance of them."

Dr. H. C. Wood says that Raynaud's is to him one of the most mysterious diseases; that the vasomotor spasm and dilatation affecting the arterioles do not account for the phenomena of the disease nor produce venous congestion in his opinion, and that the pathology of the disease is not clear. He further

doubts whether this affection is primarily a disease of the vasomotor system. It seems more probable that all the phenomena are trophic or there is a simultaneous disturbance of the tissues and of the blood vessels, so that the disease does not belong among the vasomotor neuroses, but among the trophic diseases.

With regard to treatment little can be said—it is invariably symptomatic; at any stage of the disease it is extremely unsatisfactory. Galvanism, as advocated originally by Raynaud, was extensively employed with slight beneficial effect; it does not prevent the recurrence of attacks. Some persons never have but one attack, while in others it recurs at regular intervals. The insomnia arising from local pain and exhaustion proves intractable. Internally, various remedies have been employed with invariably negative results.

In reviewing the features of this case it is interesting to note the development of the symptoms of Raynaud's disease in a man past the vulnerable age, and their frequent and nearly annual recurrence in the same parts; Raynaud having told us that four-fifths of these cases are to be found among women, and that the disease is very rare beyond 30 years of age, and Weiss assuring us that in 70 per cent. of the cases the attack recurred but a single time.

The researches of Petit and Verneuil seem to discover a close relation between Raynaud's disease and malarial poisoning. If that be the case, then, some significance must be given to the malarial attacks of our patient. I did not find a cause adequate for the chronicity of the case.

In conclusion, Raynaud's three stages of local syncope, local asphyxia, and symmetrical gangrene were all well marked in this case, which was characteristic in its etiology, progress and result. Furthermore, I am inclined to believe with Dr. H. C. Wood, that the disease is a trophic one and may with propriety be called a Neuropathic Gangrenous Tropho-Neurosis.

In an article on yellow fever in a recent number of the *Medical News*, Dr. J. E. Stubbert culls from Touatre, but it is to be regretted that the printer calls him once *Tonatre*, and again *Tonotri*.

Correspondence.

EXEMPTION OF ARMY SURGEONS FROM CAPTURE.

To the Editors of the New Orleans Medical and Surgical Journal:

I commend the spirit of the Orleans Parish Medical Society suggested by Dr. H. D. Bruns, exempting surgeons in the field from capture as prisoners of war. On reading this resolution in the August number of your journal, I am reminded of the days long past, when the war between the States was in full blast. In the first battles of the war of secession, medical officers on both sides were (I believe) held as prisoners of war. I know some Louisiana surgeons were captured at Island No. 10 on the Mississippi river in 1861 and confined in prison at Chicago until the fall of 1862, when they were released and reported to Surgeon General Moore, of Richmond, Va., for fresh assignment. During Stonewall Jackson's first valley campaign in 1862, I was surgeon in charge of Gen. Dick Taylor's Louisiana Brigade in Ewell's Division of Jackson's Corps, and was by order of General Ewell assigned to act as Division Surgeon in the absence of Surgeon Hancock, who was at home in Richmond, sick with rheumatism. When General Banks was driven through Winchester in retreat toward Charlestown, accompanied by Dr. W. S. Love (at that time surgeon of Wheat's battalion of Taylor's Louisiana brigade), I galloped into Winchester and took possession of a Federal hospital in the large female college building. We found a well-furnished and well-equipped hospital and some Federal surgeons still in the building. Assuring them that they should be protected, we set them to work in assisting us in the care of the wounded, who were brought to us in large numbers, without regard to color of uniform. On reporting this action to General Ewell, whom I found in company with General Taylor, it met the approval of both generals, and I learned through them that General Jackson also approved it. At this same battle, Dr. Hunter McGuire, Jackson's corps surgeon, if I recollect aright, paroled several Federal surgeons and put them in charge of a hospital in a hotel building, where an effort was made to collect the Federal wounded to be cared for by their own surgeons.

From that time forward this course was pursued in all the numerous battles that I participated in. After the battle of Sharpsburg, when General Lee crossed the Potomac into Virginia, several Confederate surgeons were left in charge of the wounded at that point.

At the last battle which I participated in, which was the battle of Mansfield, a number of Federal surgeons remained in care of their wounded; among the number was a division surgeon, whose name I can not recall. He complained bitterly of our scant supply of medicines and other appliances necessary for the wounded. I told him to make out a requisition upon the medical purveyor of General Banks' army, and I would get General Taylor to send it under a flag of truce to General Banks, who was then in full retreat below Natchitoches.

This was done, and two wagon-loads of medical supplies were sent to the Federal surgeons at Mansfield. Both Drs. McGuire and Love still live, the one in Richmond, Va., known to all your readers, the other an eminent physician of Winchester, Va., both of whom will no doubt concur with me in the above statement of facts.

Very truly yours,

(Signed)

J. C. EGAN.

Shreveport, La., August 4, 1898.

“There are several reasons why houses should not be placarded, and various ways in which placarding is productive of harm. The state of panic created is certainly an evil, for it is well known how difficult it is to deal with frightened people. Probably the greatest harm which comes from placarding is that it increases the number of cases that are concealed. The public and physicians join hands in this practice, and it is only what might be expected.”—DR. MEIGS.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

LEPROSY FROM HAWAIIAN ANNEXATION.

The cry has gone out from the lay and medical press in the direction of danger from leprosy upon the annexation of the Hawaiian Islands.

Meantime, for these many years the Chinese, Norwegians and South Americans have been coming in and have lived among our people unrestrictedly.

We believe that the danger is merely one of hysteric imagination, based upon the chief fact that the Hawaiian Islands have made themselves notable and noteworthy for their self-protection against a growing disease.

The condition of affairs existing in the Sandwich Islands is such that few lepers are at large. The popular revolt against the rigid laws in force has been quite overcome, and leprosy decreases constantly in these islands under the restrictions made. From year to year the number of lepers has grown less and less since segregation was originated.

Besides, the government at Hawaii is as anxious to preserve the sanitary conditions of its people as we. Here in the United States the danger is already greater than from a possible immigration from Hawaii. With focuses of infection already established in San Francisco on the west, New York on the east, and Louisiana on the south—with fully 125 *known* living cases—there is reason for apprehension; for in all the Sandwich Islands not so many lepers are known to be out of segregation. We have already sounded notes of warning to which the medical profession have turned deaf ears; but with the steady and constant appearance of leprosy in one State after another, the

danger will make itself apparent. Louisiana, California, Minnesota, Ohio, New York, Pennsylvania, Kansas, Arkansas, Texas, Mississippi, Missouri, have all reported leprosy in their boundaries. Theorizing on the contagiousness of the disease, and allowing its spread are both adding opportunity to the insidious advance of a disease which threatens long before it takes possession. The probability of a United States commission to investigate leprosy in this country is yet remote; but meantime, let us look carefully at the beam in our own confines before we shrink at the mote in the far away Sandwich Islands.

VALUABLE LESSONS.

The war, which is now practically over, has taught valuable lessons in medicine and surgery, as well as in warfare.

While it has demonstrated the advantages of modern aseptic surgery in the field, it has shown what not to do about the selection of camps and the transportation of sick soldiers. It has proved once more that sickness kills more men than bullets; that the medical department is as important as any in a properly conducted campaign, and that sanitary science is, above all, that in which army medical officers should be proficient.

In addition to these generalities, the stay of our troops at Santiago has given evidence to the effect that yellow fever is not the worst of fevers. According to the official reports typhoid fever, and, perhaps, even malarial fever, has been responsible for a greater proportion of deaths than yellow fever. Yet, Santiago has always been reputed to be the habitat of a bad form of typhus icteroides. This may serve to teach the profession and the people of the United States at large that yellow fever, while a serious disease, should not inspire the horror that it apparently does. A healthy individual can recover from it as well as from other fevers, usually in less time and most frequently without unpleasant sequels.

The spread of this disease can also, under intelligent management, be controlled and arrested as well as any other if combated in time. Last month we had the pleasure of announcing that the outbreak at McHenry, Miss., had been stopped, thanks to the efforts of the Marine Hospital Service and of the Missis-

Mississippi Board of Health. To-day it affords equal cause for congratulation that a threatened outbreak was cut short at Franklin, La., owing to the efficient work of the Marine Hospital Service again and of the Louisiana Board of Health. One case only occurred;* a prompt report by the local health officer, followed by active co-operation on the part of Federal and State health authorities led to the prevention of any more cases.

In how many infectious diseases can as much be done? Philadelphia only recently was crying out in alarm against the typhoid fever which had been prevailing for months and months, notwithstanding the warnings of medical men and the agitation of the subject by the press.

The valuable teaching of all this, if properly understood, is that yellow fever is no worse than other serious diseases; that it is better understood and can be better controlled and more successfully treated than in 1853; consequently, that the mere name of it should not inspire the mortal terror which it seems to do, especially in the bosoms of those who know nothing about it.

BEHRING'S PATENT ON ANTITOXIN.

We were inclined at first to doubt the correctness of the announcement that Behring had been granted a patent on diphtheria antitoxin. It has been confirmed, and we note that the manufacturers claim a monopoly of that agent in the American market. We hope they will reconsider and recede from this position, which is not calculated to popularize their products.

Without entering into the legal aspect of the question, which can be better handled by others and upon which the courts will be called upon to pass; without discussing the question of priority; without stopping even to call attention to the fact that the discovery of antitoxin was due to a gradual evolution starting originally from the labors of Pasteur, we desire to express ourselves as opposed to the patenting of therapeutic products calculated to save human life. In this particular instance we consider it unprofessional in the inventor and cruel in the manufacturers.

* Since the above was written, a second case has been unearthed, but this will apparently not weaken the argument.

Medical News Items.

TWELVE DAYS HAVING ELAPSED since the occurrence of the first case of yellow fever at Franklin, the State Board of Health, on July 23, released from quarantine all points in St. Mary parish, except Franklin itself, they having quarantined against the town. A second case having been discovered the next day, the original quarantine was re-established.

The following is the report of Dr. C. M. Smith, relating to this second case in Franklin :

It is stated that the boy now ill lives in a house into which bedding and furniture were moved last year, without previous disinfection, from a house in which yellow fever occurred.

FRANKLIN, La., August 25, 1898.

Edmond Souchon, M. D., President Louisiana State Board of Health:

The young man, Guidry, was taken sick at his home in Franklin last Sunday evening (August 22, 1898), and the case was diagnosed as yellow fever Tuesday morning by Dr. Carter, Dr. Foster and myself. He had black vomit, in small amount, Tuesday night, but none since then. Analysis of his urine shows albumin during the past two days; his temperature at one time was above 104 deg., with a pulse rate of 56. This morning his temperature is normal and the pulse rate 50. It is impossible to determine as yet as to how Guidry contracted yellow fever, but my belief is that he was exposed to the contagion by passing the house where Hopson died, several times daily on his way home, before the premises were thoroughly disinfected. There is no other case in Franklin, and no suspicious case.

Yours truly,

(Signed)

C. M. SMITH, M. D.

The history of the first case is briefly as follows :

The patient, Mr. Hopson, with his partner, Mr. Kemper, engaged in the hardware business, occupied as his office a room opposite the rear premises of the house in which the fever first appeared in Franklin last year. The separation, as shown by the map of the town, was the width of an alley. A few days before Mr. Hopson became ill, certain old buildings, one a privy,

in the back yard of the premises infected last year, were torn down, flooding Mr. Hopson's office with dust.

The contents of one of these buildings included a lot of paper and straw, used last year for the packing of bottles used about the sick, and which it had been promised would be burned during cold weather. It is also stated that the foundation of the privy pulled down was reeking with rotten wood and maggots. Mr. Hopson seems to have been the only one, as far as yet developed, who became infected from this particular source.

AS REFERRING TO HEALTH AND QUARANTINE MATTERS, the following report of Dr. S. G. Gill, recently detailed to investigate at Key West, will prove interesting :

NEW ORLEANS, August 25, 1898.

Dr. Edmond Souchon, President Louisiana State Board of Health:

Immediately upon my arrival at Key West, Friday evening, August 19, I went to the United States Marine Barracks in order to investigate the sickness there. Out of a corps of sixty marines, who had been stationed at Key West since the middle of June last, two were taken sick August 12, and six more were admitted to the hospital during the following two days. From that date, August 14, until my departure, August 21, no new cases had occurred. These men were all late arrivals from Northern parts, mostly from Norfolk, and entirely unacclimated. They were all taken sick during the daytime; only one had a chill with frontal headache, backache, and pains in the hip or knee joints, not referred to the muscles of the leg, but to the joints. Temperature on admission, between 99 and 103 deg. F. In two cases, nausea. The tongue in all cases, save one, is broad, flabby and tooth-marked; no tenderness on pressure over epigastric region; gums normal; eye not injected; one case is deeply jaundiced, with urine loaded with bile; there is a well-marked deep eruption over arms and neck in one case. The pulse in all cases slow; down to forty-five beats per minute in the case jaundiced. Albumin was found in small quantity in two of these cases.

State Health Officer Jos. Y. Porter had quarantined Key West before my arrival, and a guard-boat was inspecting vessels leaving Key West. There is great difficulty in preventing people from surreptitiously leaving the island, as hundreds of small craft, fishing-smacks, spongers, and boats carrying vegetables from the neighboring keys ply constantly forward and back. Those people wishing to leave the island and who have not had yellow fever are sent to Egmont Key, at the entrance of Tampa Bay, where a United States Marine Hospital Camp has been erected; they are there detained five days. I heard it stated in Tampa that the period of detention had since then been extended

to ten days. Those people having had yellow fever, and proving that fact to the Health Officer's satisfaction, are permitted to come up to Tampa without detention; their baggage is left at the State Quarantine Station at Mullet Key, two miles from Egmont Key, and about twenty-five miles from Tampa; it is here disinfected and sent up the following day. This procedure seems to me to be dangerous, although, as Dr. Porter says, sun and wind will disinfect clothing worn on one's person; yet clothing worn during the trip from Key West may be changed just before arriving at Mullet Key, and thus infected clothing brought to Tampa within a couple of hours after leaving the quarantine station.

Besides the above-mentioned ten marines who are kept isolated at the barracks hospital, there are several cases about town presenting similar symptoms; at least two of those I saw have had yellow fever in former years and all are acclimated. There are also well-marked cases of typhoid fever, as might be expected, the only water supply coming from underground cisterns, with the sinks in close proximity.

In Tampa, also, there is a great deal of typhoid fever, but I could hear no rumors of yellow fever there.

All the health officers I met in Florida did their utmost to facilitate my investigations.

Very respectfully,
S. G. GILL, M. D., *Inspector.*

(Signed)

GALVESTON HAVING A CASE OF YELLOW FEVER at the barracks, two miles from the city proper, has been temporarily quarantined by Houston and by the State of Louisiana, with other places to be heard from.

THE NEW STATE BOARD OF HEALTH, as we go to press, is announced by appointment of Governor Foster to be as follows: Dr. Edmond Souchon, designated as president, Dr. Hampden S. Lewis, Dr. Chas. A. Gaudet, of New Orleans; Dr. J. C. Egan, of Shreveport; Dr. T. T. Tarleton, of Grand Coteau; Dr. R. L. Randolph, of Alexandria; and Dr. W. G. Owen, of Whitecastle.

This is to conform with the recent enactment, which provides for a board to be composed of seven physicians, representing the different sections of the State.

THE NEW ORLEANS CITY BOARD OF HEALTH is now a reality. Very wisely the City Council asked the recommendation of desirable medical men from the Orleans Parish Medical Society. From a list of many members of the New Orleans profession

the following were selected as the medical members of the Board: Drs. Quitman Kohnke, Paul Michinard, A. C. King.

Dr. Kohnke has been prominent for some time as the champion of improved sanitation and has himself instigated many measures directed at the city's good. He has served in the present City Council since its organization, over two years ago.

Dr. Michinard is one of the best known physicians in New Orleans. He has always lived in the Third District, where he practices chiefly. He has for years been connected with the Charity Hospital, and for some time has been prominent as Professor of Gynecology and Obstetrics in the New Orleans Polyclinic.

Dr. King is much younger than either of the two mentioned, but his position in his community over the river, in Algiers, makes him desirable on the board.

With these three, two laymen are joined, Messrs. Horace U. Beach and John N. Deléry, both well known in the business community.

We have before now published the duties of the board, but we feel that in introducing the members we should express our hope that the new era of sanitation may begin, and progress with their inauguration.

DR. H. R. CARTER has been delegated to Santiago for the purpose of establishing a disinfection and inspection plant in that district.

The recent experience of our soldiers and the fatalities resultant show the urgent need of intelligent preparation of this sort.

Dr. Carter has rendered such signal service in connection with his office in the Marine Hospital Service in the South last year and this, that we shall regret losing him even for so important a mission. His departure has been delayed owing to his duties at Franklin.

PHYSICIANS' CONFERENCE.—About twenty North Louisiana physicians met at the Chautauqua, and after a very interesting program of theses, addresses and music, organized "The Physicians' Conference of the Louisiana Chautauqua;" elected Dr. R. F. Harrell, of Ruston, as president, and Dr. R. W. Faulk,

Monroe, secretary. The committee on arrangements for the ensuing year comprises Drs. C. K. Willis, Homer; F. S. Furman, Shreveport; F. N. Thornhill, Arcadia; F. J. Mayer, Opelousas; Luther Sexton and A. J. Bloch, New Orleans; C. J. Ducoté, Cotton Port; R. Roberts, Ruston. The Committee on Permanent Organization was Drs. F. M. Thornhill, A. DeSeay and Hunt. The president is authorized to confer with and obtain membership for the Physicians' Conference on the Chautauqua Board of Managers.

DR. WILLIAM PEPPER died in California July 28 aged 55. Dr. Pepper had been prominent as a teacher in Philadelphia for nearly thirty years, and in his literary work had made himself known to the world. His death is a loss to the profession.

DR. RICHARD M. SWEARINGEN, State health officer of Texas, died August 7, at Austin, after an illness of several months. Dr. Swearingen was born in Mississippi, September 26, 1838. His ancestors emigrated from Holland in 1645, and his parents settled in Washington county, Texas, 1848. In 1860-61 he stood firmly by Sam Houston and the Union cause, but when Texas seceded he promptly joined the Confederate Army and served the first six months on the Rio Grande. From there he went to Tennessee and joined a regiment in the company of Capt. A. M. Goforth as first lieutenant. The captain was killed in battle and Lieutenant Swearingen was promoted to the captaincy; he commanded the company three years.

After the close of the war Dr. Swearingen and his wife came to Texas and settled at Chappel Hill. He entered the school of medicine in New Orleans in 1867 and graduated therefrom. He passed through the yellow fever epidemics in 1869 and again in 1873. In 1878, during the great epidemic that swept over New Orleans, Mississippi and Alabama, he and Dr. Tom Manning, of Austin, volunteered their services, and Dr. Swearingen had charge in Mississippi, directing the work of physicians and treating the fever-stricken.

After the epidemic he was appointed on the National Board of Experts Upon Contagious Diseases, especially yellow fever. He was appointed State health officer in 1881 by Gov. O. M. Roberts, and, with the exception of four years, he held the

office until his death. Dr. Swearingen was well known in New Orleans. His wife and a daughter survive him.

DR. FRANK H. BRICKELL died at Asheville, N. C., August 8, 1898. He went to Asheville for his health. The trip, however, proved too much for his already weakened constitution, and he was confined to his bed until death relieved him of his sufferings.

Dr. Brickell was born in Vicksburg, Miss., in 1857, and was consequently forty-one years of age at the time of his death. He was the son of Dr. William E. Brickell, a well-known and respected practitioner of this city.

Dr. Brickell was a graduate of the Medical Department of the University of Louisiana.

Previous to his graduation he was Dr. T. G. Richardson's student at the Charity Hospital, and on the completion of his medical course was given charge of wards in that institution, retaining the position for several years. During this period he had also worked up a considerable private practice.

On account of failing health, incident to overwork and close study, the doctor went to Covington May 15 of this year. Not improving by the change, on June 1 the entire family left for Asheville, N. C., where, after nearly six weeks of suffering, the end came.

Dr. Brickell was a close student, and having undertaken a thing was never satisfied until he had sifted it to the bottom. His father had frequently urged him to take a much needed rest, as constant brain work was rapidly undermining his constitution. Deceased was one of the well-known practitioners in New Orleans, and his death will be mourned by a large circle of friends.

AT A RECENT MEETING of the Board of Regents of the Kentucky School of Medicine, a majority of that board declared vacant the chairs of Drs. Kelly and Woody, and elected Dr. Wathen, Dean, and Dr. Orendorf, Secretary, although it is claimed that Dr. Woody had previously been elected Dean and Dr. Marvin Secretary, both for the year, by the whole Faculty.

An injunction has been issued against Dr. Wathen, restraining him from claiming either orally or in writing to be Dean of

the Faculty of the Kentucky School of Medicine, and from claiming the right to receive any of the mail addressed to Dr. Woody, as Dean, or merely addressed to the Dean of the Faculty, or addressed to the Kentucky School of Medicine. A final ruling of the court is awaited with interest.

THE CONSOLIDATION OF THE ATLANTA MEDICAL COLLEGE AND THE SOUTHERN MEDICAL COLLEGE, under the name of the Atlanta College of Physicians and surgeons, is announced. The two former institutions cease to exist, and the last named will be the only regular medical college in Atlanta. This coalition has been made by the common consent of the faculties and boards of trustees of the two institutions, and the influence hitherto backing both the old colleges will be wholly given to the new. Fees will remain the same as for the past year in both.

THE YOUNG LOUISIANA PHYSICIANS who went with the army to Cuba have all made good impressions and received favorable mention. A few are returning, but the majority are still on duty. We shall have occasion to refer to their experiences and achievements at a later day.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

SURGERY OF THE LUNG.—The annual oration in surgery before the American Medical Association has now been completely published in Nos. 4 to 7 inclusive of the *Journal* of the association.

This is a masterful presentation of the subject of pulmonary surgery, and will, we believe, add marked impetus to the evolu-

tion of surgical procedure in this important department, so much neglected even up to the time when M. Reclus read his remarkable address at the French Surgical Congress in 1895. This valuable contribution of Murphy's deserves something more than a passing notice, as it is likely to prove one of the epoch-making articles of this closing decade of the nineteenth century.

The first section of the paper makes a brief reference to the history of the subject, and then follows a discussion of the anatomy of the chest and contents and the physiology of respiration. The study of the anatomy is illustrated by some radiographs, which must have been made with a remarkably good machine.

The succeeding numbers discuss the surgery of the respiratory organs in all its phases.

Lung operations are divided into—

1. Those that do not perforate the visceral pleura, which aim to convert the hard-walled cavity into a collapsible one.

2. Those that perforate the visceral pleura, and these are divided into pneumotomy and pneumectomy. Some of the remarkable cases of the last ten years are referred to, to show the possibilities of lung surgery, since sepsis has been so nearly eliminated from surgical practice. The dangers of operation are mentioned as shock, hemorrhage, pneumothorax and sepsis. The discussion of pneumothorax is particularly interesting. The questions requiring solution are: Is the admission of air into the pleural cavity dangerous? and if so, what is the danger due to? All the different views are thoroughly gone over and the conclusion reached as the result of observation of accidentally opened pleural cavities and of experimentation on animals, that the dyspnea following opening of the pleural cavity is due to the vibration of the mediastinal septum and contents destroying the piston action of the diaphragm. In this connection he relates some interesting observations and experiments showing that, with an open pleura, any obstruction to the exit of air will cause the collapsed lung to expand in expiration and contract in inspiration, directly the reverse of what occurs on the opposite side with unopened pleura.

The treatment of pneumothorax is carefully considered. Simple traumatic and idiopathic cases will generally recover without

interference, but he advises immediate and free incision in all cases of septic pneumothorax.

Hernia of the lung is also discussed.

Wounds of the lungs are considered at length, and the final chapters are devoted to the discussion of infective lesions of the lung, which concern the surgeon.

First, abscess, its etiology, physical signs and diagnosis, are taken up and then follows a thorough review of the treatment as exhibited in the surgical literature of the subject. A table accompanies this section, giving a brief resumé of all cases of lung abscess arranged chronologically from 1878 to 1897, amounting to seventy-two cases in all.

Under the head of Bronchiectasis another exhaustive table is given of bronchiectatic cavities from 1873 to 1897, forty-nine in number.

Gangrene of the lung is next considered, and all cases from 1879 to 1897 brought together, amounting to ninety-five in all.

Foreign bodies merit attention also. Tuberculosis, as was to be expected, is really the *pièce de résistance*. In this section his method of treatment by compression with nitrogen gas is fully described, and all the cases of incision and drainage of tubercular cavities are gathered from all sources into a most carefully prepared table of forty-six cases.

Six cases of tumor of the lung (operated on) are also collected.

The oration closes with a consideration of the Neoplasms of the chest wall and lung requiring pneumectomy, and it is shown that although the hope of success born from the results of Biondi's experiments has never been realized, still it is evident that "much work of noble note" has been wrought and the future holds much promise for surgery.

Such valuable work as that now presented by Murphy is rarely seen. Though, perhaps, not so delicate in style as the magnificent work of Stephen Paget, published in 1896, still, this Murphy oration, bristling with the best facts of literature and pregnant with the original researches of its distinguished author, will remain a monument to American surgery.

Department of Obstetrics and Gynecology.

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

URETERAL ANASTOMOSIS.—Howard A. Kelly (*American Gynecological and Obstetrical Journal*) writes that he has ligated the ureter in one instance while removing a carcinomatous uterus through the abdomen, and twice in enucleating fibroid uteri.

During a hysteromyomectomy at another time a ureter was divided, but immediately anastomosed, and in a case where the ureter was bared in enucleating a carcinomatous uterus sloughing occurred and led to the establishment of a uretero-vaginal fistula. Ureteral injuries occurring during operations are due either to ligation of one or both ureters, the application of pedicle clamps, puncture with a needle while carrying a ligature under bleeding areas, by cutting them when displaced, or cauterizing the walls and causing sloughs with thermo-cautery. Ureters are often torn when closely adherent to cysts or malignant growths, and sloughing frequently follows the removal of the external vascular sheath during extensive enucleations. Winckel concludes that the proportion of ureteral fistulæ to the number of total hysterectomies is 17 in 774, or 2.2 per cent.

Ureterostomy is the best procedure in case of injury, which can be done as follows: Into the abdominal wall—simple ureterostomy; by joining the severed ends—uretero-ureterostomy; or crossed ureterostomy—uniting the severed ureter with the opposite one. The upper severed end can be switched into the bladder, and is termed ureterocystostomy, or into the rectum—ureteroproctostomy. Often the end can be brought into the vagina—ureterocolpostomy, or into the colon. The first three mentioned are the measures adopted when an immediate closure is to be made. The others are undertaken at later dates, and Dr. Kelly remarks that this class are usually the result of accidental formation of fistulæ rather than to methods of choice.

SENSIBILITY OF FEMALE URINARY AND GENITAL ORGANS.—Calmann (*Arch. für Gyn.*) publishes a large number of experiments

which are of considerable forensic importance. The sense of localization in uro-genital apparatus of women is incompletely developed, and the subjects experimented upon were rarely able to differentiate between the bladder and vagina. Calmann could fill the vagina with cotton containing large quantities of shot without the knowledge of the subject. In the urethra the temperature sense is strongly developed, to a small degree in the vagina, while in the cervix and interior of the uterus it is completely absent. The urethra and interior of the uterus are quite sensitive to pain, the vagina and cervix but slightly. These investigations prove that the statements of women regarding criminal or therapeutic manipulations if confined to the uro-genital apparatus are unreliable, and if unsupported by other evidence they are insufficient basis for criminal action.—*American Journal of Obstetrics.*

SUSPENSION OF THE UTERUS.—Dr. Kelly reports that of seventy-five cases of suspension of the uterus forty-nine were married and twenty-eight were single. The forty-nine married women reported pregnancies; nine were absolutely normal; of the remaining five one case suffered from the beginning of gestation with abdominal pain. One patient now pregnant feels wretchedly, with pain over the abdomen. Another case miscarried after "violent dancing;" in two more cases the placenta was retained. In general, twenty-seven cases were entirely relieved of their discomforts, thirty-seven were greatly benefited and eleven unrelieved.—*Kelly's Operative Gynecology, Vol. 2.*

MANAGEMENT OF SOLID TUMORS OF THE OVARIES DURING PREGNANCY.—(1) Solid neoplasms of the ovary, complicating pregnancy, are exceedingly rare.

(2) The diagnosis of this rare combination of a physiologic and pathologic process may be very difficult. The physical examination with the signs of pregnancy, and those which belong more particularly to solid ovarian growths, will generally enable us to make at least a probable diagnosis and one sufficient to warrant an exploratory section.

(3) The prognosis in cases of solid growths of the ovary complicating pregnancy is much worse, both for the mother and child, than those of cystic neoplasms of these organs. This is

to be explained by the fact that the former are usually smaller and remain in the true pelvis and obstruct the parturient canal; while the latter, owing to their bulk and consistence, rise above the pelvis, and the dystocia, if produced at all, is of a less serious nature. Abdominal section and extirpation of solid tumors during the early months of pregnancy produce equally good results, so far as the life of the fetus is concerned, as in the case of cysts; the ultimate result in the case of the mother depending, of course, on the malignant or benign nature of the growth.

(4) The general rule should be to operate on all cases between the second and fourth months of gravidity. It would be hard to find a stronger argument in favor of the elective operation for extirpation of these ovarian neoplasms than is furnished by a comparison of the statistics of the best authorities.

(5) The compulsory operation during the latter half of gestation, during labor or the puerperium, will rarely be required.—SWAN.—*Johns Hopkins Hospital Bulletin*.

Department of General Medicine.

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

THE VALUE OF KERNIG'S SIGN IN THE DIAGNOSIS OF MENINGITIS.—Netter, of Paris, calls attention to Kernig's sign, a very precious mark for diagnosing meningitis.

Indicated as early as 1882 by Kernig, of St. Petersburg, tested by Henock, Bull, Blümm, Friis, this symptom has passed unnoticed by the majority of physicians.

It is easily detected. The patient should lie flat on the back and the physician make sure that the patient's lower limbs are completely relaxed and both knee joints completely extended without difficulty.

The patient is now raised and held in the sitting posture.

It is then noticed that *both knee joints are more or less flexed* and can not be brought back to complete extension though great force

is used. The flexor muscles being in the state of contracture prevents extension and there remains an angle of 90 deg. in very marked cases; in cases where extension is the greatest the angle is still of 135 deg. and 140 deg. Complete extension becomes possible again and easily so as soon as the patients return to the lying posture. Satisfactory explanation of this phenomenon has been tried, in vain, but it is certain that the phenomenon actually takes place, and that its value is considerable, as shown by the following statement:

In forty-six cases of meningitis of all kinds carefully observed by Netter, only in five (5) did it fail to appear; it is consequently present in 90 out of 100 cases.

It was found only in meningitis, as Netter looked for it in vain in a number of cases of typhoid fever, pneumonia, acute articular rheumatism, chorea, central disorders in children, erythema nodosum, etc.

The detection of Kernig's sign, Netter says, permits the positive diagnosis of meningitis in cases where all its symptoms are not present and to affirmatively diagnose latent and disguised meningitis where it is the only symptom perceptible.

The two following cases, says Netter, demonstrate his views:

The first case was a distinctly clear case of typhoid fever, in which Kernig's sign existed. The patient died of perforation, and autopsy revealed, with the usual lesions, typhoid fever, the concomitant existence of meningitis, caused by the staphylococcus aureus.

The second case presented Kernig's sign, with some symptoms of meningitis feebly marked. The lumbar puncture being made no fluid was aspirated. After ten days' remission, the temperature rose again and there appeared back of the sacrum a fluctuating tumefaction. This being incised, pus was found containing meningococci. This pus had certainly come from the vertebral canal following the track made by the aspirating needle. It therefore showed conclusively the existence of meningitis.

Kernig's sign belongs to all kinds of meningitis, to tubercular and secondary meningitis as well as to cerebro-spinal meningitis. Netter so far has not looked for it in chronic meningitis, but it was already pointed out in such cases by Kernig himself as early as 1882.—*Société Médicale des Hôpitaux de Paris.*—*Gaz. Hebdomadaire.*

DISSEMINATED OR MULTIPLE INSULAR SCLEROSIS IN CHILDREN.—Coming across a case of multiple sclerosis in a child in the wards of Dr. Raymond, the report of which had not been published yet, Madame Landis, Doctor of Medicine, Paris, started to investigate the question, and hunted up three more cases. She published the four cases in her inaugural thesis, showing that multiple insular sclerosis (*Sclérose en plaques*) does exist in children properly speaking, though it is rarely observed.

The youngest two patients were respectively six and eight years old. The clinical manifestations of multiple sclerosis in children are wholly analogous to those observed in adults.

The case personally observed by the author followed an attack of scarlet fever, thus indicating the influence of infectious fevers in the pathology, views which are at present debated.

The integrity of the nerve cells and axis-cylinders is the rule in multiple sclerosis in children, and consequently the prognosis is not always unfavorable as in adults. Children have a chance to recover.—LANDIS, *Contribution à l'étude de la Sclérose en plaques chez l'enfant, Thèse de Paris. No. 322, Gaz. Hebd.*

Department of Therapeutics.

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

GUTAND'S AMENORRHEA PILLS.—

℞ Strychnin sulphate	gr. ss.
Iron peptonate	
Manganese lactate	aa. grs. xx.
Scammony	grs. xx.

M. Divide into forty pills. Two to four pills to be taken every night on going to bed.

—*New York Medical Journal.*

DECOMPOSITION OF CHLOROFORM VAPOR.—It is not generally known that chloroform vapor is decomposed in the presence of the ordinary gas flame and that irritant fumes are thereby set free, in the air of the room, which are capable of seriously inflaming the air passages of both operator and patient. These irritant vapors consist principally of hydrochloric acid and chlorine, and both of these, of course, are known to be

powerful inflammatory agents. In this connection two reports which have recently been made to the London *Lancet* are of interest. One of these is made by the Berlin correspondent, who writes of such an accident occurring in the Catholic Hospital at Herne, Westphalia. The other report is from Dr. Waddellow, who writes to the *Lancet* of a case in which chloroform was administered in a small room, poorly ventilated, which resulted in his suffering from irritation of his bronchial mucous membrane for a period of four days, notwithstanding the fact that the purest chloroform obtainable, possessing no odor of any free chlorine, had been employed. The result at the Herne Catholic Hospital was of a more serious nature than that reported by Dr. Waddellow. The writer of the article also states, that on one occasion he suffered much from irritation of the respiratory passage, caused from the fumes of decomposed chloroform. "It is important to remember, therefore, that chloroform is, under certain circumstances, far more capable of producing serious respiratory difficulty than is ether, and in every instance, where it is possible, electric light should be utilized when this drug is used for anesthetic purposes. Where this light is not obtainable, the lamp or gas-jet should be so arranged as to be far removed from the inhaler and the light be concentrated upon the wound by means of a reflector.—*Therapeutic Gazette.*

SCHLEICH'S MIXTURES—Dr. Willy Meyer, in a recent letter published in the *Medical Record*, calls attention to some investigations made by Dr. Weidig, at his (Dr. Meyer's) suggestion, which showed that the ordinary Schleich's mixtures are really mixtures and not genuine solutions. The chloroform, petroleic ether and sulphuric ether partly combine; no free chloroform could be found, but in each of the three solutions free sulphuric ether in varying proportions was found. Dr. Meyer also mentions the fact that Metzger, who investigated the physiologic effects of pure petroleic ether for him, found that it acts as a tetanizing agent on animals. It may prove not to be the innocent diluent that Schleich believed it was. The mixtures should therefore be used with great caution.—W. L. ESTES, in *The Therapeutic Gazette.*

TREATMENT OF DYSMENORRHEA.—

℞ Tincture of hydrastis canadensis
 Ext. viburnum prunifolium fl., aa ℥iv
 M. Ft. Mist. Sig. Ten drops every two hours.

FOR VOMITING IN PREGNANCY—

℞ Hydrochlorate of hydrastin gr. xv
 Distilled water ℥iii
 Sig. Fifteen (15) minims hypodermically.

—*Les Nouveaux Remèdes.*

METHYLENE BLUE IN THE TREATMENT OF DIABETES MELLITUS.—A man of fifty-three years suffering from headache and general malaise and other evidences of diabetes mellitus, including glycosuria and albuminuria, received five to eight grains of methylene blue, and under these circumstances the albumin materially diminished and the sugar markedly decreased in quantity. The quantity of urine also decreased. In a second case the results were equally satisfactory. In this instance four pills of methylene blue to the amount of two grains each were administered each day with marked benefit. One advantage of this treatment is that it tends to relieve any neuralgic pains from which the patient may be suffering.—*La Médecine Moderne.*—*The Therapeutic Gazette.*

Miscellaneous.

AMYLOLYTIC FERMENTS.—In an article on this important subject, Wyatt Wingrave, M. R. C. S., England, in the *London Lancet*, relates a personal necessity that arose for a reliable starch digestant. A crucial comparative examination was therefore made of many malt extracts and of Taka-Diastase, the tests being conducted both chemically and clinically.

He summarizes briefly: (1) That Taka-Diastase is the most powerful of the starch or diastatic ferments and the most reliable since it is more rapid in its action—*i. e.*, “it will convert a larger amount (of starch) in a given time than will any other amylolytic ferment.” (2) That Taka-Diastase seems to be less retarded in its digestive action by the presence of the organic acids (butyric, lactic, acetic). and also by tea, coffee and alcohol, than are saliva and the malt extracts. This is an important

point in pyrosis. (3) That all mineral acids, hydrochloric, etc., quickly stop and permanently destroy all diastatic action if allowed sufficient time and if present in sufficient quantities. (4) That Taka-Diastase and malt diastase have, like ptyalin, no action upon cellulose (uncooked starch). All starch food should therefore be cooked to permit of the starch ferment assisting nature in this function.

THE VALUE OF PIPERAZIN as a solvent of uric acid and uratic concretions and its therapeutical importance in the treatment of chronic and acute gout, stone, renal colic, and other forms of uric acid diathesis has been proved during the last few years, not only by pharmacologic experiment, but from extensive clinic experience.

Recently renewed attention is called to piperazin by frequent favorable reports in the medical press. Prof. R. W. Wilcox, of the Post-Graduate Hospital, New York, has written on "A Phase in the Treatment of Goutiness" in the *Medical News*, November 27, 1897. As the dispensing of piperazin, owing to the very hygroscopic nature of the drug, is accompanied with difficulty, Professor Wilcox employs piperazin water. He states, "So far as my knowledge goes, piperazin water is the method of choice for the administration of this drug, because perfect solution in proper dose and quantity of menstruum is obtained."

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 the Skin. By JAY F. SCHAMBERG, A. B., M. D. With ninety-nine illustrations. P. Blakiston's Son & Co., Philadelphia, 1898.

This work of nearly 300 pages has been carefully prepared and has been unusually well illustrated. It is quite comprehensive, and in the details of

description, differential diagnosis and treatment much care has been exercised.

The diseases are arranged in accordance with Duhring's classification, an improvement over the Hebra classification usually followed.

Altogether, the book commends itself for the amount of material contained in so small a space, and from the freedom from slips—typographic and editorial.

DYER.

Notes on Massage. By JESSIE M. WARD. P. Blakiston's Son & Co., Philadelphia, 1898.

This little work is a practical presentation of the method and purpose of massage, including a distinct explanation of the relations of anatomy and physiology to the subject.

DYER.

A Manual of Hygiene and Sanitation. By SENECA EGBERT, A. M., M. D. Illustrated. Lea Bros. & Co., Philadelphia and New York.

Attention is given in this excellent handbook to all the questions bearing upon personal and public hygiene.

Air, food, drink are considered, while ample space is given to school hygiene and to the necessity for and the ways of disinfection and quarantine.

A timely chapter is devoted to the disposition of sewerage, and the book is concluded with chapters on vital statistics and the examination of air, water and food.

DYER.

The Surgical Complications and Sequels of Typhoid Fever. By WM. W. KEEN, M. D., LL. D. Philadelphia, W. B. Saunders, 1898.

This book is written in the usual thorough style of its author. Based as it is upon a large number of personal and collected observations of cases it is a practical book that can not fail to be extremely useful as a guide to any one who is perplexed during the course of a typhoid case by some entirely unlooked-for complication. The role of the typhoid bacillus is here shown to be a marvelous one. All the tissues are subject to post-typhoid effects and very remarkable is the resistance of this germ, it having been found alive and active in the tissue even twenty years after the typhoid case was well. We commend the book heartily, and every physician and surgeon should find much instruction in its pages. We regret that space does not permit us to notice the book as it deserves.

F. W. P.

Brief Essays on Orthopedic Surgery. By NEWTON M. SHAFFER. New York, D. Appleton & Co., 1898.

This little book comprises essays on orthopedic surgery, especially advo-

eating the mechanical treatment of deformities, as opposed to operative treatment. The relations of the specialty to general surgery are set forth. There is a chapter also on specialism.

F. W. P.

Surgery of the Rectum and Pelvis. By CHARLES B. KELSEY, A. M., M. D. New York, Richard Kettles & Co., 1897.

This is practically a new edition of the author's well-known work on "Diseases of the Rectum and Anus." The scope is much increased by the addition of nine chapters on diseases of women, intestinal resection and anastomosis, the radical cure of hernia, appendicitis and the male genito-urinary organs. We doubt, however, if the utility of the book has been made greater by this increase. It is true that genito-urinary affections in male and female often complicate or are complicated by rectal diseases. This very truly might call for observations on differential diagnosis and on complications in works on either subject, yet we do not seize the advantage of adding descriptions of operations on genital organs to a work whose originality and chief interest are destined to remain centred in the subject of rectal diseases.

We do not mean to detract from the value of the book, which remains one of the best on the rectum, but we would have preferred not to see its bulk increased by subjects adequately treated of elsewhere.

C. C.

The Office Treatment of Hemorrhoids, Fistula, etc., Without Operation. By CHARLES B. KELSEY, A. M., M. D. New York, E. R. Pelton, 1898.

A small volume of about sixty pages, it consists of three lectures. The first is intended to call attention to the possibilities of conservative office treatment, although it does not enter into explanations about such form of treatment. The second treats of the relation between diseases of the rectum and other diseases, especially in women. The third and last refers to the abuse of the operation of colostomy, the author arguing in favor of extirpation of the diseased bowel as against the formation of an artificial anus.

C. C.

Inflammation of the Bladder and Urinary Fever. By C. MANSELL MOULLIN M. D., F. R. C. S. Philadelphia, P. Blakiston, Son & Co., 1898.

This monograph should be read by every one who expects to introduce a catheter, were it only for the care with which it is explained that "catheters are always septic unless they have been thoroughly sterilised."

The carelessness with which urethral instruments are handled and introduced by so many is appalling and tend to show the author is correct in his statement that "aseptic surgery seems still to stand in need of an advocate when the bladder is concerned."

The question of cystitis is exhaustively and scientifically treated, espe-

cially from the standpoint of etiology and pathology. Prophylaxis and treatment receive attention, although the scope of the work does not permit entering into the details of technic.

We can sincerely recommend the book.

C. C.

PUBLICATIONS RECEIVED.

Lectures on Tumors, by John B. Hamilton, M. D., LL. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

Yellow Fever and Dengue, by W. L. Coleman, M. D.—The Clinic Publishing Company, Chicago, 1898.

Biennial Report of Louisiana State Board of Health, 1896-1897.

Yellow Fever: Its Nature, Diagnosis, Treatment and Prophylaxis, etc., by officers of U. S. M. H. Service, 1898.

Elements in the Diagnosis and Treatment of Diseases of the Throat and Ear, by W. Scheppegegrell, A. M., M. D.—G. P. Putnam's Sons, New York and London, 1898; F. F. Hansell & Bro., New Orleans.

Diseases of Women, by E. C. Dudley, A. M., M. P.—Lea Bros. & Co., Philadelphia and New York, 1898.

Proceedings of the Association of American Medical Colleges, 1898.

Cardiac Failure and Its Treatment, by Alex Morison, M. D.—The Rebman Publishing Co., London, 1897.

Manual of Physical Diagnosis, by James Tyson, M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

Materia Medica for Trained Nurses, by John E. Groff, Ph. G.—P. Blakiston's Son & Co., Philadelphia, 1898.

Diseases of Children, by John M. Taylor, M. D., and Wm. H. Wells, M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

REPRINTS.

The Use of Quinin in Malarial Hemoglobinuria, by Albert Woldert, Ph. G., M. D.

Upon the Existence of a Minute Micro-Organism Associated with Cases of Progressive Portal Cirrhosis. by J. G. Adams, M. A., M. D., F. R. S. E.

Inflated Rubber Cylinders for Circular Suture of the Intestines.—Miniature Hammers and the Suture of the Bile Ducts, by W. S. Halsted, M. D.

The First Recognized Case of Yellow Fever in Mobile in 1897, with Comments, by Edwin L. Maréchal, M. D.

The Tuberculin Test in Cervical Adenitis, by Edward O. Otis, M. D.

External Esophagotomy for Impacted Foreign Body.—Branchial Carcinoma.—The Question of Operative Interference in Recent Simple Fractures of the Patella, by Charles A. Powers, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR JULY, 1898.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	7	4	11
“ “ Intermittent	1		1
“ “ Remittent	1	2	3
“ “ Congestive.....	2	1	3
“ “ Typho	3	1	4
“ Yellow			
“ Typhoid or Enteric.....	13	5	18
“ Puerperal			
Influenza.....			
Measles			
Diphtheria			
Whooping Cough	1	3	4
Apoplexy	19	4	23
Congestion of Brain.....	3	2	5
Meningitis	4	5	9
Pneumonia.....	9	3	12
Bronchitis	6	6	12
Cancer.....	13	1	14
Consumption.....	25	26	51
Bright's Disease (Nephritis)	8	14	22
Uremia	3	1	4
Diarrhea (Enteritis).....	10	18	28
Gastro-Enteritis	2	2	4
Dysentery.....	5	2	7
Hepatitis.....	1		1
Hepatic Cirrhosis	5	2	7
Peritonitis.....	2	1	3
Debility, General	1	5	6
“ Senile	24		24
“ Infantile	3	7	10
Heart, Diseases of	22	18	40
Tetanus, Idiopathic			
“ Traumatic	3	2	5
Trismus Nascentium.....	6	4	10
Injuries	6	4	10
Suicide	4		4
All Other Causes	91	58	149
TOTAL	303	201	504

Still-born Children—White, 22; colored, 31; total, 53.

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

Death Rate per 1000 per annum for month—White, 15.54; colored, 25.12; total, 18.33.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.04
Mean temperature	82.00
Total precipitation.....	4.57 inches
Prevailing direction of wind, south.	

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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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.]

THE POLICY OF DEPOPULATING CITIES INFECTED WITH YELLOW FEVER; IF UNDERTAKEN, HOW BEST TO ACCOMPLISH IT.*

BY FELIX FORMENTO, M. D., NEW ORLEANS, LA.

A priori and on general principles, we would probably all be inclined to admit that the early depopulating of infected cities, if practicable, would be the best and most efficient means of stamping out an epidemic disease at its very birth, by removing the elements necessary to its development. A fire without fuel will soon die out—the disease would soon come to an end for want of subjects. But is such a policy possible? Can it be carried out? Even with the good will and active co-operation of all the citizens of a town or village, is such a general exodus practicable? How and where could we find the physical means, the financial resources necessary, indispensable for the carrying out of such a measure? Who would furnish both the means of escape and of subsistence to thousands of families, and for an indefinite period?

As to a compulsory depopulating, to a forced exodus, even in the smallest of our communities, such a course is not to be thought of, is absolutely impossible in a free country like ours.

* Read at the Mobile Quarantine Convention.

No authority on earth would have the power, still less the right, to enforce it. The population of the smallest and most insignificant hamlet has natural rights and privileges, which can not be interfered with. In this question, the presence of yellow fever is not the only factor to be considered. The innumerable and varied family, social and commercial interests of modern life can not be overlooked, sacrificed to fear—justifiable or not—of a disease, however dreadful it may be; their ruin would be more of a calamity than the disease itself. I can not here abstain from protesting in the strongest terms against the shameful and humiliating measures inspired by terror and panic which have been witnessed all around us during the epidemic of 1897. These measures of self-protection were as worthless and unscientific as they were cruel and tyrannical. Remnants of the practices of the dark ages, they are unworthy of our age and civilization. I never could understand why our people, so brave, so reckless and indifferent to danger, ready to take all sorts of risks by land and water, should become so timid, so frightened, so demoralized in the presence of a few cases of yellow fever. That disease has the privilege of inspiring more terror than any other, many times more terrible and fatal. This sentiment of fear is degrading and a worse evil than the disease itself, as it tends to lower the moral sense of a whole people.

This terror is entirely unjustifiable. In fact yellow fever has lost much of its violence since 1853. That year the death rate was enormous, three out of four! In 1878 it was one in five; in 1867 it was one in twenty, and in 1897 it was about one in 200.

Physicians should endeavor to popularize these facts. They prove conclusively that yellow fever is not the frightful disease, the horrid monster that most people imagine. The disease, nowadays, in our country at least, is less fatal than typhoid fever, scarlet fever, la grippe and even measles, at times.

All our epidemics begin early in May or June. When introduced in August or September, the disease never develops extensively.

General depopulation of a city or town, however desirable from a theoretical point of view, is, I repeat, of impossible realization. It never could apply to a large city. Voluntary exodus—which implies the necessary means to accomplish it—of indi-

viduals and families should greatly be encouraged, especially at the very breaking out of the disease. This depopulating is generally done at once, spontaneously, without waiting for the direction or control of health authorities.

Let me recall here a remarkable example of general, voluntary depopulating. It occurred in New Orleans during the terrible scourge of 1853. The population of that city was then a little over 100,000 inhabitants; it is calculated that out of that number there hardly remained in the city more than 45,000; among those were 15,000 negroes, not susceptible to the disease, and of the remaining 30,000, half at least were fully acclimated.

In general, this depopulating of towns and cities can be safely accomplished, provided it is carried out at once, at the very breaking out of the disease. Yellow fever generally appears at one point from importation, and gradually spreads all around from that primitive point; the infected area widens slowly and uniformly; it takes some time for the disease to extend to all parts of a town, some time before the infection becomes general. A town should not be considered infected on account of the existence of one or two cases. In the meantime, persons that have not been exposed to the infection can safely leave that locality. The case is different when hundreds of infected persons, from an infected locality, are imported at the same time into one town, thereby soon creating a large number of different foci, distributed in every direction. In that case, depopulating comes too late and only serves to spread the disease to neighboring localities.

During the existence of an epidemic no person should be allowed to leave the infected locality for a healthy one, without taking proper sanitary precautions. These consist principally in permitting no baggage, but only scant wearing apparel, and in the thorough washing and disinfecting of the person himself.

Refugees should be brought to a camp of observation established in a convenient and healthy locality on the railroad outside of all contamination; there they would remain during the period of incubation; then a train from the town willing to receive them, and carrying clean, disinfected clothing, etc., would come to convey them to their destination. We could cite several instances in which, under similar precautions, the transfer was effected without any bad results.

There is a method of depopulating which is, perhaps, more productive of good than that of towns and villages. We refer to the early depopulating of the houses in which occur the very first cases of fever. This method applies to all infectious diseases and is the one followed in Germany for the immediate stamping out of scarlet fever, typhus fever and other infectious diseases. To carry out successfully this plan, all necessary precautions should be taken in advance and be always in readiness, especially in those cities most exposed to infection. Special hospitals for the treatment of yellow fever, established in the outskirts of the town, should at all times be ready for the reception of patients, and camps of observation and isolation, one of the best measures instituted during the recent visitation, should also be fully prepared in advance. On the occurrence of the very first cases the sick should be removed to the hospital, and the well, living in the infected house, at once removed to the camp, and the house thoroughly disinfected. This is particularly urgent in crowded tenement houses and densely-populated quarters.

By the system of depopulating houses, which I advocate, the well are given the benefit of sunlight, fresh air, exercise and proper nourishment. They are at liberty among relatives and friends, able to work for the support of their families.

Whenever an infected house can not be depopulated of its inhabitants, every effort should be made by the attending physician to have, at least, the patient isolated from the balance of the family. He should be removed to the upper story in preference and there nursed by a special nurse, or one or two of the immediate relatives. No communication should be allowed between the patient and his immediate attendants and the other members of the house. Within the rooms occupied by the sick and his nurses all known measures of proper sanitation and disinfection should be carried out during the whole course of the disease. Particular attention should be paid to the immediate disinfection of all excretions. According to Sternberg, the infectious agent seems to be mainly contained in the discharges from the bowels; yet Sanarelli has never found his micro-organism in those discharges nor in the black vomit. If all contaminated material be at once destroyed or rendered inert, the danger of the transmission of the disease would be greatly

diminished. It is generally admitted nowadays that yellow fever is not, strictly speaking, a contagious disease, one transmitted by personal contact, but is transmitted by infection and fomites.

Depopulating of infected houses, the forced removal of patients to a special hospital and of the well inmates of said houses to a camp of observation are certainly arbitrary and of draconian order. They should only apply to the first cases. If not successful, they should at once be abandoned. When a number of foci have been established in a town they can do no good. The people will at first willingly submit to these measures in the hope of the great benefits that are expected from their enforcement. Individual rights and privileges may be sacrificed to the public good for a short time only. Prolonged indefinitely without good results, they become a tyranny which can not be tolerated.

The consideration of the general causes which favor the development of the infecting agent of yellow fever does not belong to my subject. I beg to be allowed to say, however, that my personal observations, during several epidemics, seem to fully confirm the opinion that the disease-germs thrive most luxuriously in decomposing organic matter of all sorts, in a soil saturated with putrefying masses of nitrogenous substances. Extensive areas of ground uncovered by pavement furnish a most favorable nidus for the development of those germs. Our mud streets and foul gutters certainly present a rich soil for their rapid growth and propagation. No doubt yellow fever germs would be found in great abundance in the mud of our streets and gutters. I do not know whether researches have been made in that direction. An ample field is here offered to the bacteriologist. All infectious diseases have their special culture media and vehicula of transmission. Cholera and typhoid fevers are transmitted by water, tetanus and the plague by the ground. We believe that yellow fever belongs to the latter category. The ground theory gives the best explanation of the spread of all our great epidemics (Touatre).

Paving our mud streets and abolishing or disinfecting our gutters with electrozone would go far toward the extinguishment of yellow fever among us. The disappearance of the disease from our Northern cities, once decimated, is no doubt due in a great measure to the general paving of their streets.

Conclusions :

1. General depopulating of towns and cities infected with yellow fever, however desirable, is not practicable.
2. Voluntary exodus of individuals and families is to be encouraged at the first breaking out of the disease.
3. During an epidemic, depopulating should be carried out under special sanitary precautions.
4. Depopulating of houses in which first cases occur, by removal of the sick to properly constructed hospitals, and of the well to special camps of observation, and thorough disinfection of houses, we consider the most efficient measures for the stamping out of the disease at its birth.
5. Isolation of the sick and destruction or disinfection of discharges from bowels, and of all contaminated material, with disinfection of the premises, are the best means of limiting the disease.
6. All measures of repression of an arbitrary character are to be applied to a limited number of cases only. If they fail they should be discontinued, as they are an additional burden to the sufferings and hardships of the people.

Clinical Reports.

GUNSHOT WOUND OF LEFT AXILLARY ARTERY; TRAUMATIC ANEURISM; LIGATURE OF LEFT SUBCLAVIAN; OPENING OF SAC AND SECURING OF BLEEDING POINTS; DEATH; REMARKABLE EFFECTS OF REPEATED SALINE INFUSION.

BY F. W. PARHAM, M. D., PROFESSOR OF SURGERY, NEW ORLEANS POLYCLINIC, ETC., NEW ORLEANS.

Joseph B., *et.* 33, was shot on July 3, 1898, in the town of Tuscaloosa, Ala. The ball entered the axilla in the line of the axillary vessels, just as they emerge from behind the free edge of the great pectoral muscle, and passed on through the deltoid muscle, lodging behind the shoulder and below the acromion

process, where it was removed by the attending surgeon. There was no evidence of fracture and the joint seemed not involved. The ball had evidently passed behind the humerus without injuring the bone. Dr. Trimm, of Tuscaloosa, brought him to New Orleans, and came into my office about 2:30 P. M., on July 30, and related the circumstances to me, requesting me to see him. Upon my advice he was sent at once to the New Orleans Sanitarium, where I saw him about 4:30 P. M.

I found a poor, cadaverous looking man, much debilitated and wasted by suffering, loss of rest and lack of nutrition, from inability to retain food on a very irritable stomach. He appeared to be suffering greatly with his arm and could not stand long from sheer weakness. The doctor, his friend, informed me that he had suffered so much that he had been compelled to give him morphin rather frequently.

Examination of the arm showed much restricted movement, which caused great pain, referred to the axillary aspect of the arm. Here was found, partly behind, partly below the edge of the pectoral muscle, a pulsating, expansile tumor, evidently connected with the axillary artery. Thrill was not marked, but the expansion could be easily made out.

The arm was conspicuously swollen, the edema, greatest about the tumor, gradually fading to the elbow, where it was lost, the forearm corresponding pretty well in size and contour with its fellow. There was slight venous stasis, but it seemed to be connected rather with the late development of the tumor than with any injury to the axillary vein by the ball. Neither radial nor ulnar artery pulsated at the wrist, nor the brachial at the elbow flexure, in spite of lack of swelling there. Above, the whole internal aspect of the arm was distorted by the aneurismal tumor and the skin tense and glistening. It was evident that the aneurism was diffusing. But we were confronted with the desperate physical condition of the man, reduced by suffering and a railroad trip of several hundred miles. I thought it best to make him as comfortable as possible and try to give him a good night's rest and get him (by hypodermic stimulation) into a condition which would justify operative interference next morning.

Next morning at 10 o'clock, assisted by Dr. E. D. Martin, Dr. Walet administering the chloroform, I made the usual incision

over the left clavicle for ligature of the subclavian in its third portion and sought the artery. Little difficulty was experienced, and a catgut ligature placed temporarily around the vessel, just outside the scalene muscle. Examination of the tumor at this moment showed great increase of the swelling, but no pulsation nor expansion could be made out. As the man's condition, however, was urgent I tied the ligature, placed another near it and closed the wound, except at lower end, where a gauze drain was inserted. The wound was dressed and covered with collodion. I now gave my attention to the general condition. He was much depressed, but had rallied sufficiently, I thought, to justify the opening of the sac and search for the wound in the artery. I made a long incision, and turned out a large quantity of clot. As there was considerable fresh hemorrhage, I packed, made pressure and waited a few moments. As the least relaxation of pressure allowed blood to ooze through the dressing, I quickly removed the pack, turned out thoroughly all remaining clot, enlarged the wound up to the pectoral edge, and having discovered that the blood came from the main trunk of the artery high up, I grasped this with forceps. All hemorrhage now ceased. I made a dissection around the vessel, which plainly showed a large laceration on its anterior aspect; a ligature was placed also below. There was no evidence of involvement of the main venous trunk. [Subsequent failure of development of edema below confirmed this conclusion.] The wound was lightly packed and closed with sutures over the gauze. While I was doing this I had gotten Dr. Martin to expose a vein in the right arm, and saline infusion had already begun. Two pints and a half seemed to revive him sufficiently, and he was sent to his room in as satisfactory condition as we could have reasonably hoped for.

SUBSEQUENT COURSE: $\frac{1}{8}$ grain morph. sulph., $\frac{1}{100}$ grain nitro-glycerin, $\frac{1}{100}$ grain digitalis, $\frac{1}{30}$ grain strychn. sulph. were administered subcutaneously and repeated in two hours; $\frac{1}{30}$ grain sulphate strychnin was injected every four hours. Hot water in small quantities was allowed, but little was retained owing to extreme gastric irritability. As he had gotten to lean upon morphin, a quarter of a grain was given now and then as a stimulant to the nervous system. Consequently he had to be catheterized occasionally.

4 P. M. day of operation. The pulse becoming very frequent and feeble, hypodermoclysis, Oj, was tried, followed very shortly by intravenous infusion to Ov containing \mathfrak{z} i tinct. digitalis. The pulse responded beautifully, quickly strengthening in force and falling in frequency to 120.

August 1, second day. Vomited large quantities of greenish fluid far in excess of any amount swallowed. Nothing seemed to have the slightest effect, except thorough washing out of stomach. Several quarts of water were passed in and out. This was done at 7 P. M. with considerable relief of nausea, but the pulse, which had been getting weaker and more frequent since morning, was now so bad that something had to be done. Three and a half pints of saline solution were injected at a temperature ranging from 108 deg. to 114 deg. Fahr. The response was immediate. The pulse, which had been 140 to 156, gradually fell in frequency during that night.

August 2, third day. The pulse continued to improve until at 5 A. M. it had reached its lowest point, 112. This improvement was maintained all through the third day. At midnight it was 110 and much more satisfactory.

August 3, fourth day. The general condition encouraging. Pulse still falling in frequency and increasing in force, ranging from 100 to 114 until midnight when it again showed an upward tendency.

August 4, fifth day. He had been much nauseated during the night, vomiting quite frequently the same greenish fluid. At 9 A. M. he vomited Oj of this fluid, although he had taken very small quantities of liquid of any kind. The stomach was washed out until the water came back unstained. \mathfrak{z} viii of peptonized milk was introduced before removal of tubes. Although he did not vomit for some hours, his general condition got worse, and at 3 P. M. he again vomited. His stomach was again washed out and \mathfrak{z} xiv of peptonized milk introduced, and five and three-quarters pints of salt solution infused through a vein near the malleolus (the vein was easily exposed without pain under Schleich's No. 1 cocain solution). The pulse was 165.

At 10 P. M. the stomach was again washed and 14 ounces of milk introduced. The pulse promptly and decidedly responded

to the intravenous infusion, but only temporarily. At midnight it was 160 and bad.

August 5, sixth day. He continued to grow worse, vomiting of the bilious fluid being incessant, notwithstanding the washing out of the stomach. Hiccoughs had come on occasionally the night before and was now constant. It seemed useless to attempt any further infusing of saline solution. He died at 10:45 A. M. August 5, conscious to the last.

To sum up :

THE TEMPERATURE, 100 when taken into operating-room, remained about this for twenty-four hours, rising in the morning of the second day to $101\frac{3}{5}$, due probably to infection of the subclavian wound from the vomit. At 10 that night it reached 103.2 deg. Next morning it had fallen to 101 deg. and gradually fell to 100, where it remained until the evening of the fourth day. During the next twenty-four hours there was a rise, once to $102\frac{1}{2}$ deg.

THE PULSE, bad at the start, continued wretched throughout, except when temporarily brought up by the infusion. The improvement was especially noticeable on the evening of the second day, after the third infusing of saline solution. This improvement of the pulse, coincident with the general improvement, was well maintained until the fifth day. During the fifth day it became so bad that a fourth infusing had to be done.

THE STOMACH.—This was wretched and seemed to be the chief trouble. Astonishing quantities of bilious fluid were thrown up, and the stomach was so irritable that nourishment had to be given in only half-ounce doses, except when introduced by the tube.

THE BOWELS were rather irritable, and nourishing by this route was not practicable.

THE KIDNEYS acted well throughout—forty ounces being passed the second day, twenty-two ounces the third day, thirty ounces the fourth day and thirty ounces the fifth day.

THE ARM.—The arm did remarkably well. Some edema showed itself and a few points of slough over bony prominences, but altogether it promised well, as the surface temperature was very satisfactory. No slough of fingers showed itself. I should remark here that it would have been, perhaps, best not to have

done a permanent ligation of the subclavian, but to have used the ligature while searching for the axillary laceration, but I felt at the time that the ligature was the quickest and safest, and, fearing that his condition would permit of nothing else, I tied it. The lower operation was a second thought.

THE WOUNDS.—The subclavian wound suppurated rather freely, due probably to contamination by vomit or perhaps to infection to wound made in removing the ball, this suppurating still at the time of entering the sanitarium.

The wound in the arm was lined by a slough, but was easily managed by packing.

THE SALINE INFUSION.—The following amounts were given :

Immediately after operation	Oii ss.
Evening of first day.....	Ov
Together with Oi subcutaneously.	
Evening of second day	Oiii ss.
Evening of fifth day.....	Ov ̄xiij.
Total quantity injected..	Oxvj ̄xiij.

Strychnin was given freely subcutaneously throughout the treatment and digitalis frequently, but nothing produced any marked effect but the intravenous infusion. This was given hot (109 to 115 deg.). Its effect was invariably manifested in a pronounced manner and always promptly. No chill followed its use, and only once (on the second day) was there any decided rise of temperature to be attributed to it. As he took very little other fluid, the satisfactory action of the kidneys must be credited to this measure. If the man's stomach could have been controlled so that he could have taken nourishment, doubtless he would have recovered. Saline infusion did all that can be expected of it when given hot. It must be considered a most valuable life-saving measure, the most valuable that we have at our command. Its power to bridge over that period of shock, when let alone the man will die, is marvelous, but it can not keep a man alive indefinitely. If nutrition can not be maintained the patient must ultimately succumb, as no one can live on salt water alone. If this poor fellow could have been operated on sooner, before he had been reduced by fever, suffering and loss of sleep until his stomach became wretchedly unfit to perform its functions, I believe he would have recovered.

This case, I think, shows conspicuously the effect of intra-

venous saline infusion, and especially the power of repeated infusions in keeping a man alive, giving him repeated chances to resume his natural functions and recover. On four different occasions this man was at the point of death, but was revived by the saline injection, and I am satisfied that many a case will be saved in this way that would without it inevitably die. The intravenous method is much more efficient because more rapid, but there is no reason why in the same case the intravenous method may not be advantageously combined with enteroeclysis and hypodermoclysis, but in a grave emergency no time should be lost; the trump card should at once be played. Intravenous infusion must be done boldly; it should be given hot and given for effect, no matter if a gallon must be thrown in, until the pulse falls in frequency and increases in force.

I have just operated on a case of appendicitis in a boy of eleven, in whom suppuration had filled the pelvis, requiring two hours to find the location of the trouble, evacuate the pus and complete the case by the removal of the appendix, and the washing out of the peritoneal cavity, which had become contaminated. Shock was profound. He was revived by thirty-two ounces intravenous infusion, but two hours afterward collapsed again, when two pints more were thrown in through the canula which was left in at time of first infusing. His pulse at this time was 150 to 170, but fell during the infusing to 140 and 130. At this writing, eight days after the operation, he has improved so much that his recovery seems likely. The temperature of the infusion was 115 deg.

A CASE OF COMBINED EXTRA AND INTRA-UTERINE PREGNANCY.

BY C. JEFF MILLER, M. D., NEW ORLEANS.

During October and November, 1897, a colored woman, 27 years of age, of good family history, married and the mother of one child, was treated by me during an attack of rheumatism of two months' duration. After a tedious convalescence she regained her former health and activity. She passed from under my observation until April, 1898, at which time I was hastily sum-

moned to attend her for a miscarriage. According to her statement the pregnancy was of three and one-half months and had resembled in every respect the first one with one exception of occasional severe pains low down in the abdomen. The child had been expelled before my arrival and was lying on a cloth between the woman's thighs. I thereupon passed the forefinger of my right hand into the uterus which was dilated, and by pressure over the abdomen with the other hand delivered the secundines and some blood clots. The woman complained of great pain during these manipulations, but I attributed the complaint to her nervous disposition. A hot douche was ordered with instructions that I should be notified of any untoward symptoms. This was 11 A. M. About 3:30 P. M. of the same day a message came that the woman had been suffering intensely for two hours and for me to call. Upon arrival the woman was found in a profound state of collapse, rapid and shallow breathing, the skin bathed in perspiration, a pulse of 160 per minute, and complaining of excruciating pain low down in the abdomen. Her sister explained that about 1 o'clock, after sitting up in bed to take a glass of water, she was suddenly seized with violent pain, then vomited and rapidly grew weaker.

Pressure over the abdomen (low down) produced pain, the abdominal muscles were quite rigid, the dullness was elicited by percussion. Every symptom pointed to extensive internal hemorrhage, but it was clearly seen that she was beyond the assistance of surgical measures. It immediately occurred to me that I had ruptured the uterus while emptying the contents a few hours previous, but a careful digital examination disclosed no rent. Per vaginam, however, a fluctuant mass was located principally to the left of the uterus in the region of the broad ligament and aroused suspicions of a ruptured hematoma with bleeding from its walls. About two hours later she died. Owing to the peculiarity of the case and its disastrous ending I asked permission to examine the abdominal cavity. After assuring them that she would not be mutilated, I got consent. Through a six-inch incision I passed my hand, removing quantities of blood, and, from the region of the left broad ligament, large blood clots. Among the clots in the pelvis, a fetus about three and a half inches in length was finally fished out and a ruptured fallopian tube on the left side discovered.

The case was exceedingly interesting to me for several reasons-- first, it was a rare complication. I could not recall at the time any similar cases reported in literature. Furthermore, it is an exceedingly dangerous complication, as it could pass unobserved until rupture of the tube took place, be ruptured as in this case during an effort to remove the uterine contents, or necessarily complicate labor if it had ruptured in the broad ligament folds and continued to grow.

A review of all the available literature shows this condition not to be so rare as I first believed. To Dr. B. B. Browne, of Baltimore, the profession is indebted for the first compilation of the cases occurring prior to 1881. He reported before the American Gynecological Society (Vol. V of the Transactions), twenty-four instances of combined intra and extra-uterine pregnancy, and remarked upon the unusual gravity of the condition. Ten of the twenty-four cases went to the end of pregnancy, four were assisted surgically, three of which were fatal to the mother, with two of the extra-uterine children saved. Three of the six at term who were not subjected to surgical interference recovered and three died. The extra-uterine children perished in each of the six cases left to nature, and sloughed out at later periods through the vagina or abdominal walls.

Royster (*American Journal of Obstetrics*, December, 1897) reports a case of a woman who went to full term and was delivered by a midwife of the intra-uterine child. Twenty-three days later he performed laparotomy, and removed a dead child weighing four and one-quarter pounds, together with a placenta weighing two pounds.

With the assistance of Dr. R. P. Harris, Dr. Royster found that thirty-seven cases of this condition had been noted in the Index Catalogue of the Library of the Surgeon General's office previous to 1890. A review of the Index Medicus from 1890 to the present time shows eight instances of reports of cases contributed to different periodicals.

Howard A. Kelly (*Operative Gynecology*, Vol. II) alludes to eighteen cases collected by Gutzwiller (*Archiv. f. Gyn.*). Ten of the mothers died, and four were saved by celiotomy.

Not having access to the article of Gutzwiller I am unable to ascertain whether the cases mentioned are all included in Royster's collection or not. The literature shows that this compli-



KERATOSIS NIGRICANS.
(DR. DYER'S CASE)

cation exists often enough, however, to warrant a careful investigation in every instance where sudden internal hemorrhage occurs as in my case, or a tumor is observed complicating pregnancy, especially if of rapid development.

A CASE OF KERATOSIS NIGRICANS.

BY ISADORE DYER, PH. B., M. D.,

PROFESSOR OF DISEASES OF THE SKIN AND SECRETARY NEW ORLEANS POLYCLINIC,
ETC., NEW ORLEANS, LOUISIANA.

Frank —, aged 7 years, admitted to dermatologic service July 25, 1898.

His condition on admittance was as follows: Generally well nourished, of average size for his age, believed to be of Sicilian or Italian origin.

The eruption must have been present for some time from its general character and extent. At first glance we were struck with the glassy appearance of the eyes and the absence of eyelashes and eyebrows, giving the patient the appearance of a leper. The absence of other evidences excluded further thought of this diagnosis. Dr. B. A. Pope, visiting oculist to the hospital, sent me the following report:

“DEAR DOCTOR—I have examined Frank and find a blepharitis marginalis (with some loss of eyelashes), which here is evidently simply an extension of the skin lesion.

“On the lower part of left cornea he has a large diffuse infiltration with a little superficial ulceration.

“This I regard as phlyctenular keratitis and as a complication (not a portion of skin disease) due to depressed nutrition.”

The eruption was general, absolutely symmetrical and bilateral. The skin of the whole body was quite dark, the only normal being at the angles of the mouth and the lower vermilion border of the lips, at which point the skin was almost abnormally white.

The eruption was found especially on the hands and feet, knees and elbows, scalp, ears, neck, face and shoulders. Here and there on the trunk and on the arms were patches of eruption.

The head presented an almost complete baldness, here and

there a tuft of hair appeared, but only at the occiput and on the sides of the scalp, forming a doubtful fringe. Even where the hair occurred, the eruption was evident and the hair itself was sparse and coarse. The eruption on the scalp consisted of a mass of thickened cornified tissue almost *in solido*, excepting on the vertex, above the ears and over the occiput, where thickened skin without the cornified mass occurred.

The eruption presented the appearance of flat sessile warts slightly elevated and varying in color from a dirty drab to a chocolate brown.

The ears were more distinctly marked with the eruption, particularly at the borders of the conchas. In places the eruption was almost black, the warty appearance less defined and to the touch the patches had the sense of a nutmeg grater. The eruption here was even darker in color than on the scalp.

On the face the eruption presented a disseminate papular type, in groups, patches and in clusters, excepting on the upper and lower lips and chin, where a typical acanthosis presented.

Over most of the face the eruption was fine and appeared as if the skin had been badly chapped, to the touch feeling like coarse sand paper.

Forming an oval, or ellipse, the lower axis beginning and ending at the tip of the chin and bridge of the nose, the short axis beginning and ending a quarter of an inch outside the angles of the mouth, the eruption occurred as a mass of closely aggregated papules and new growths; on the nose, upper and lower lips, being sandy to the touch, while at the lower border of the ellipse, on the chin, the warty condition was evident. The whole patch was a dirty black in places, brown in places and deep in color.

The neck particularly, as well as the back, the shoulders and the legs, presented a roughened, thickened appearance, with the same sand-papery feeling to the touch.

The elbows and knees on the extensor surface presented the black, thickened verrucose condition seen around the mouth; on the knees, however, distinct circles of rugæ were found.

The hands and feet, particularly the hands, presented a much thickened aspect, the dorsi being distinctly cornified, the keratosis showing black, especially at the wrists, over the thumbs, first fingers and over the last phalanges of the other fingers. A

like condition of the toes. The plantar and palmar surfaces were simply thickened on the hands, showing an almost translucent callosity; on the feet a smooth shining tenseness.

At the point of the coccyx, running up on either side, forming a butterfly patch, two and a half inches in circular area, the eruption was evident, as deep in color as around the mouth and equally as thickened. The end of the foreskin was likewise thickened and sufficiently sandy to cause an eversion of the foreskin.

At no point on the body, legs, arms, face, neck, were there any scales, while on the scalp the scales were plentiful, in places even crusted.

The eyelids were much thickened, but at no other point was there evidence of swelling or edema. His general health seems in no way affected.

While these cases are as yet rare, this one in particular is interesting as being the youngest case until now reported.

A CASE OF FATAL CHLOROFORM NARCOSIS*

BY FELIX A. LARUE, M. D., CLINICAL INSTRUCTOR ON SURGERY IN THE NEW ORLEANS POLYCLINIC, NEW ORLEANS.

I deem it a duty to myself and all concerned to report the following case of chloroform narcosis, which again clearly demonstrates that notwithstanding the amount of care one may take in the selection and administration of this anesthetic, we at times witness its fatal effect.

E. M., born and raised in Louisiana; white; male; married; 31 years of age; laborer by occupation, with good antecedent family history. Personal habits said to be good; patient stated that he was not a hard drinker; and in fact, although the capillaries of the face were dilated and visible, he did not present any alcoholic stigmata.

This patient was admitted into Ward 9 of the Charity Hospital, August 24, 1897. Dr. F. W. Parham and myself were in charge of the ward, and Mr. W. E. Kittredge was resident student. Patient said that he never had any serious illness in his

* Read before the Louisiana State Medical Society, 1898.

life, and was perfectly well up to a week before his admission, when he was suddenly ruptured in the right inguinal region whilst lifting a heavy piece of timber.

On admission, patient, who was of a jovial disposition, presented the picture of health—robust, muscular, weighing about 180 pounds. A thorough examination of the heart, lungs and kidneys was made, these organs being found normal; there was nothing abnormal in the urine. We detected a rather large and painful hernia, which was easily reduced.

On August 31, one week after admission, every preliminary precaution having been taken, he was taken to the amphitheatre to undergo the radical cure for hernia. Mr. Kittredge administered the chloroform with the Esmarch inhaler, and by the drop method, the chloroform being allowed to drop on the inhaler at the rate of 15 drops per minute. I can testify to this, as I was watching, knife in hand, ready to operate.

The patient had taken about one drachm of the anesthetic when his face became rapidly cyanosed, a gurgling laryngeal sound was heard and the pupils became suddenly dilated. Immediate cessation of the chloroform; pulse slow but full. His throat was instantly cleared, artificial respiration with the head down was resorted to, and as the respiration seemed to stop, the Fell-O'Dwyer apparatus was used, the canula at first inserted in the mouth and then through a tracheal incision, but unfortunately all without avail.

Cold water was poured on his chest from a height and other restorative measures were used, but without success.

We succeeded in having an autopsy, which revealed atheromatous aortic and mitral valves with congenital perforation of same. Lungs normal, but kidneys, although both normal in size, presented slight signs of interstitial nephritis. My only regret is that we did not measure the quantity of urine and urea excreted in twenty-four hours.

We were informed by relatives, who claimed the body, that patient had been an alcoholic.

Society Proceedings.

ANNUAL CONFERENCE OF THE STATE AND PROVINCIAL
BOARDS OF HEALTH OF NORTH AMERICA, HELD AT
DETROIT, AUGUST 10, 11 AND 12.

REPORTED BY DR. J. J. CASTELLANOS, NEW ORLEANS.

Preceded on the 9th, and, as it were, ushered in by the imposing ceremonies of the quarter centennial celebration of the Michigan Board of Health, one among the oldest and most zealous in America, the above mentioned conference opened under most favorable auspices, with a most brilliant gathering of scientists and sanitarians, hailing from every State of the Union, as well as from the Canadian provinces. Thanks to the practical, business-like spirit that presided over the selection and distribution of the several topics submitted for discussion, very abundant and interesting matter, well worthy of being treasured up by every true sanitarian, was happily condensed within the narrow space of time allotted to the sessions. Hence it was, and being a participant I am warranted to emphasize, that the workings of the Detroit conference were carried out to thorough completion. Dr. Benjamin Lee, secretary of the Pennsylvania Board of Health, and president of the National Public Health Association, presided, with Dr. Felix Formento, our distinguished fellow-townsmen, as vice president. The president's opening address—short, pithy, and interspersed with felicitous sallies of caustic wit, in fact a most welcome departure from the old, hackneyed course usually pursued on like occasions—rang pleasantly with welcome to the delegates then present and congratulatory acknowledgment to the Health Board of Michigan in having reduced to a minimum the former high rate of typhoid fever in Detroit, and, as he pointed to “the pellucid waters of Lake St. Clair, polluted from Port Huron sources,” he felt bound to admit that through the Michigan board's laudable efforts, if dangers still lurked in its waters, these should incur only the mitigated charge of being “honestly bad.” An exhaustive paper on “Sanitary Work Twenty Years Ago,” by Prof. R. C. Kedzie, M. D., ex-presi-

dent of the Michigan board, demonstrated the evolution of sanitary science, and, following up its progressive stages, the several eras which successively flashed in the darkness of ignorance with the first gleams of discovery and comparative advance.

Prof. C. H. Lindsay, M. D., dean of the medical faculty of Yale College, earnestly endeavored to demonstrate the necessity of public co-operation in carrying out the purposes of their health boards. From his paper, in which he specially refers to the "Educational work of the Board of Michigan" as an exemplar, we quote the following: "The most essential element of success in the administration of public hygiene is public co-operation and appreciation on the part of the public that the work of the State and local boards is simply applied sanitary science. It is merely the employment of what people call business principles or common sense that are most conducive to the health of communities." Further on he sounds a keynote which should be re-echoed through the halls of our boards of health, in full unison with the sympathetic pleadings of philanthropy and the stern behests of duty: "There is no party politics in sanitary organizations, or there ought not to be, because it is as destructive to their usefulness as the typhoid germ is to the human subject. Hence it is that public sanitation has no attraction for the legislator. He is never a leader in sanitary legislation. The appreciation of all such legislation is forced from him by the enlightened sentiment of his constituents."

A very effective measure adopted in this conference for the purpose of gleaning whatever was distinctive in the methods of each separate board, and wherein some claim of superiority or nearer approach to perfection might be sustained, was the reading of reports from almost all the delegates. The outcome of these collective observations was, as should have been expected, one of peculiar interest and mutual advantage, and afforded ample opportunity to the attentive listener to realize the importance which in our Eastern and Western cities is attached to the prevalence, if not predominance, of that dreadful scourge, typhoid fever. In fact, it seems to be the engrossing object toward which, barring diphtheria and occasionally small-pox, their most energetic efforts are directed. The polluted stream, the defective sewerage down to seepage filtration from cess-pools into their wells, are as many masked evils, disguised

enemies that insidiously threaten health and life in the very midst of affluence within the precincts of palatial residences.

Far more to be apprehended than yellow fever, because of its local permanency in populated centres or in communities where hygienic conditions (especially ours in connection with our cistern water supply) are allowed to verge into most repulsive wretchedness, typhoid fever ever holds its sway here as elsewhere. It would not, therefore, be amiss to quote from Dr. John S. Fulton, secretary of the Maryland State Board of Health, in support of this assertion, were it to need any:

“The public, including the doctors, have not yet learned what an epidemic is, and local health boards are usually loath to use the term within their sanitary jurisdiction. Their reluctance doubtless grows more out of the sensitiveness of large business communities than out of the professional sensitiveness of local officers. In current use, epidemic simply means the prevalence of an unusual or dangerous disease. Twenty cases of rabies would, in Detroit, seem an epidemic, and your newspapers would reverberate with horror, but who ever heard of an *epidemic of tuberculosis* anywhere? If the 100 deaths from typhoid fever which occur in a year should all happen in three months, you would refer to the 1500 cases or so as an *outbreak*. If they all fall in a month, you would admit the existence of an epidemic. The people need to know that in every city whose typhoid rate is, year after year, two per thousand, typhoid fever is annually epidemic.

“Typhoid fever is as much the sanitary shame of American cities as yellow fever is the opprobrium of the West Indies—indeed, or leprosy of Hawaii.”

As a natural and therefore very appropriate sequence to the above, quite a technical paper on the “Purification of Surface Water,” was read by Mr. Gardner S. Williams, engineer of the Detroit Water Works. It was much to be regretted that owing to the fact that Detroit had not as yet gone into the matter it was impossible for him to furnish the results of local experimentation. A striking assertion of his, which led the way to some discussion, was that of the insufficiency of chemical analysis upon which assurance of purity could be established in favor of any certain water, “but must be inferred” from all available data concerning the sources of supply, so as to establish a stan-

dard from which "deductions could be made with any degree of certainty." Dr. Hurty, of Indianapolis, secretary of the conference, then took up the study of the several filtering plants now in operation at Lowell, Massachusetts, and in Germany and England, aided with admirable stereopticon illustrations. Sand seems to be the adopted filtering medium, as it has given the most satisfaction, although, it must be confessed, no stage of perfection has yet been reached. A very important fact has, however, been reached in the above-ground filters; a notable decrease in the number of the bacilli has been noted in a direct proportion to the depth of the sand filter. So that it can be logically inferred that a filtering medium could be made with a requisite depth that would absolutely exclude the bacilli.

The underground filter is a marvel of mechanical ingenuity; such as is used in Germany and England, with small streams in the immediate vicinity of towns, with the stream-bed of porous sandy material and underground, perforated conduits to receive the filtration, it is of itself an automatic or natural self-filtering plant.

The last day of the conference was consecrated almost exclusively to the study of tuberculosis, reviewed from the etiologic, pathologic and, as exhaustively as the high importance of the subject commanded, from all the other standpoints, both speculative and practical. Previous to the election of officers for the coming year, on which occasion Dr. Felix Formento, of New Orleans, was unanimously elected president, with Dr. Bryce, of Ontario, as vice president, a special hearing was given the Louisiana Health Board's delegate, who endeavored to explain, with the assistance of colored diagrams, our maritime sanitation with its improved methods and apparatuses. Nor were left unrecorded the names of our local sanitarians who each in his turn contributed his valuable share to our methods of defence against the exotic invader who ever stands threateningly at our doors. "*Ferat qui meruit palmam.*"

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

YELLOW FEVER AGAIN.

After one or two false alarms, a positive case of yellow fever was announced by the health authorities in New Orleans on September 17, 1898. The season was so far advanced that the expectation of escaping the disease had seemed well founded. The report of several other cases has shown that the first mentioned was not unique; yet, even as we go to press there is reason to trust that all of them are sporadic cases, such as are to be almost expected after a marked outbreak like that of last year.

Of course, all the evils of quarantine are upon us; absolute non-intercourse (this is mainly the *commercial* kind), and intercourse with more or less intelligent restrictions. The adoption by some localities of the Atlanta convention regulations makes it possible to carry on some commerce and, we are glad to say, in this State at least we have until now been spared the so-called shot-gun quarantine.

It is evident that the mass of the people have not experienced the panic that usually follows an announcement of yellow fever. The extreme mildness of the disease everywhere last year and where it has prevailed so far this year has done a good deal to reassure. The general public is learning that the malady has lost its virulence, and that as a result also of modern and non-meddlesome medication it is not to be dreaded more than other infectious diseases which attract no attention. In many places quarantine has been established as a necessary obligation on the part of the health authorities and against the wishes of a majority of the people.

We believe that intelligent and efficient sanitation should replace quarantine, which is irrational, uncivilized and frequently inefficient. To accomplish this it requires only a campaign of education on the part of health authorities and the

medical profession. Show the people that yellow fever is no worse than other fevers, that it can be controlled in person and in place better than many others; especially, give it another name in order that it may be rid of the terrors which now exist only in tradition—do this and unnecessary fear of it will disappear; physicians will not be taking their lives in their hands when reporting it; commerce will not be paralyzed at the mere suggestion of it; it will be possible to handle it fearlessly, successfully, and *at once* wherever it appears. The chief obstacle retarding the progress and prosperity of the Gulf and South Atlantic States would be removed.

PROFESSORISM.

A few words should be said in favor of the tendency to expand the professorships at the leading medical colleges, when so general an attack against this step is being made by the medical journals in other sections.

The young profession, especially those seeking to teach, are spending more time in their equipment for this work than formerly and in assuming the positions of instructors and lecturers they do so with the proper qualifications for the positions they occupy. In this field men do not sacrifice ambition, but rather nurture it, and they hope for advancement as the years go by and as their services demand it.

Professorships in most medical schools are for life tenure almost and the hope of advancement by succession is usually remote; questionable in some instances where the election or appointment to the chair is arbitrary with the faculty.

The instructor is not necessarily less proud of his title, but it is a fact that in the public eye, as well as in the student's mind, the instructorship is not held in the same dignity or respect as a professorship. More than this, the emoluments are by no means the same, and in this latter day the ambition of aspirants is tinged with the desire for commensurate recompense.

The natural outcome has resulted. Men who have served their apprenticeship, or those who have made rapid strides of progress, have been made as nearly as possible the fit understudies of those occupying the full chairs of medical teachers. "Asso-

ciate" and "Adjunct" professorships really act as gradations in a scale of fit promotion and in nowise detract from the usefulness of a medical institution.

The education of a medical student is no longer accomplished by men who are interpreters of current text-books, but is attained by individual workers who first qualify and then teach along the ever multiplying lines of medical or surgical advance.

The tendency of the times is to broaden education; to expand each new field of science as it is discovered, and the workers in such fields need the spur of recognition as well as the token of reward.

The fact that unworthy shoulders bear the mantle and the title of "professor" does in nowise detract from the dignity of a worthy professor—in fact, the very assumption brings with it the ridicule to the one who uses what is not his own.

After all the purpose of distinction is to discriminate, and if honor is withheld when due the result must be the lack of aspirants. A man who deserves the decoration of the title to an office does not have to wear it, but the distinction still stimulates the seeker to the effort for it and the possessor to deserving his occupancy.

A QUARTER CENTURY OF SANITARY WORK.

In a sketch read before the Quarter Centennial Celebration of the Michigan State Board of Health and published in his own journal for September, the *Sanitarian*, Dr. A. N. Bell contributes an interesting historic relation of hygienic and sanitary progress. He reviews the institution of sanitation from the early efforts up to the present. The article is broad in its handling and not only deals with the questions of statistics, State and municipal sanitation, but even includes in its scope the obligation of the individual physician in the maintenance of the future hygienic laws. The article is in large part a review of the work of other men, but it is expanded by the views of the author into a valuable contribution of the history, if not of the practical purpose of sanitation.

If progress along the lines which have been developed in the twenty-five years just gone can be assured for those years now to come we can prophesy more content for our personal well-being. Dr. Bell's contribution deserves to be generally read.

Medical News Items.

THE STATE BOARD OF HEALTH, whose personnel we announced in our last issue, has organized as follows: President, Dr. Edmond Souchon, of New Orleans; vice president, Dr. J. C. Egan, Shreveport; Dr. G. Farrar Patton, secretary; Dr. C. L. Horton, medical inspector; Dr. S. G. Gill, shipping inspector; Dr. John N. Thomas, quarantine inspector at Port Eads; Dr. J. E. Doussan, same at Rigolets, and Dr. J. H. Douglas, at the Atchafalaya.

LOCAL BOARDS OF HEALTH up to date have been appointed and have organized as follows:

Governor Foster has appointed three members of the Baton Rouge Board of Health, as follows: Drs. T. J. Buffington, N. K. Vance and Charles McVea. The mayor, with the approval of the council, appointed Dr. J. W. Dupree and Mr. T. J. McGuire, thus completing the membership of the board. Dr. Buffington was elected president and Dr. McVea secretary.

The Governor has appointed the following on the Board of Health of Shreveport: Drs. J. C. Egan, L. H. Fisher and Richard Furman. We have seen no announcement of other appointments by the mayor of that city. Baton Rouge and Shreveport are the only two cities upon whose board the Governor has any power to make appointments.

The city council of Lafayette in special session created a municipal board of health, under provisions of Act 192 of the General Assembly, with the following gentlemen as members: Drs. J. D. Trahan, N. P. Moss, P. M. Girard, F. R. Tolson and Wm. Clegg.

The Mayor and Council of Morgan City appointed the following: Dr. J. H. P. Wise, C. St. Clair, M. Cogenheim, E. E. Roby and Wm. Green. The board organized by selecting Dr. J. H. P. Wise for chairman.

The Crowley Board consists of Dr. M. L. Hoffpauir, Dr. W. G. Young, Dr. S. T. Pulliam, A. F. Robert and C. L. Crippen. They met and qualified before Mayor J. E. Barry. Dr. W. G.

Young was elected president and health officer, with Dr. M. L. Hoffpauir as secretary and sanitary inspector.

The newly appointed Board of Health of Rayne is composed of Drs. R. C. Webb, G. C. Mouton and A. S. Chapuis, W. S. McBride and I. Lehman. The board organized by electing Dr. G. C. Mouton president and health officer.

The Town Council of Franklin, at its regular meeting, appointed the following persons to compose the Board of Health of the town for the ensuing year: Dr. J. S. Gates, Dr. B. W. Smith, Dr. A. J. Smith, Wilson McKerall and H. S. Palfrey.

Monroe's Health Board is as follows: Dr. William Sandel, E. T. Lamkin, W. L. Jones, Dr. C. W. Hilton and J. W. Wright. Dr. Sandel was chosen president, E. T. Lamkin vice president and Dr. Jones secretary.

The town council of Thibodaux elected a Board of Health composed of Dr. Thomas Stark, Dr. L. H. Fleetwood, Dr. Louis E. Myer and Messrs. Sam Blum and Emile Lafort.

The town council of Cottonport elected a Board of Health under the new State Constitution: Drs. C. S. Ducoté, C. J. Grémillion, B. J. Lemoine, Messrs. L. A. Ducoté, Oscar Lemoine.

The police jury of West Feliciana appointed a Board of Health, one member coming from each ward, as follows: Dr. A. F. Barrow, C. W. Simmons, E. B. Fort, Dr. C. F. Howell, C. B. Austen, J. H. Nelack, Dr. J. S. Johnson, B. I. Barrow, William Stewart, W. B. Smith.

The town council of Melville appointed the following Board of Health: Dr. H. S. Joseph, W. K. Fairecloth, J. M. Hayes, E. J. Lyons and C. W. Havard.

IN CONSEQUENCE OF QUARANTINES, the opening of the next session of the Medical Department Tulane University of Louisiana is postponed from October 20 to November 10. The regular lectures will begin November 28. The session will close about May 3, 1899.

THE STATE HEALTH OFFICER OF TEXAS is now Dr. W. F. Blunt, succeeding Dr. Swearingen, deceased. Dr. Blunt was for many years health officer at Galveston, where he served both

efficiently and creditably. His familiarity with quarantine methods and sanitary needs make him a desirable man in the office. We congratulate both Dr. Blunt and the State of Texas upon his appointment by the Governor.

DIED.—Dr. G. McD. Brumby died at Biloxi, August 27. The doctor was well identified with the practice of medicine in this State while living at Delhi. He was a member of the State Medical Society, and at the time of his death was register at the United States Land Office.

Dr. Oscar J. Breaux met a tragic death at Socarpo, Texas, while assisting in the arrest of some cowboys. Dr. Breaux had gone to Texas for his health. He had been in practice in New Orleans, having graduated from Tulane and from the Charity Hospital.

THE TEXAS CLINIC is the title of a new periodical hereafter to appear monthly, beginning October 1. From its announcement we anticipate that it will bring credit on its promoter and editor, Dr. J. B. Shel mire, a former resident of this State, a Tulane graduate and a resident student of the Charity Hospital, now living at Dallas, Texas, the home of the *Clinic*.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will hold its twenty-fourth annual meeting in Nashville, Tenn., commencing at 10 A. M. October 11, 1898, lasting until October 14. The meetings will be held in the hall of the House of Representatives, while the headquarters of the association will be at the Maxwell House. Communications in regard to papers, etc., should be sent to the secretary, Dr. Henry E. Tuley, No. 11 West Kentucky street, Louisville.

THE TENTH ANNUAL MEETING OF THE TRI-STATE MEDICAL SOCIETY, of Alabama, Georgia and Tennessee, will be held at Birmingham, Ala., Tuesday, Wednesday and Thursday, October 25, 26 and 27, 1898.

MESSRS. PARKE, DAVIS & Co. announce that they will protect and defend from legal proceedings that may be brought against any physician or pharmacist as a result of the purchase, sale and use of their anti-diphtheritic serum, assuming the entire expense of such defence.

A BOARD OF OFFICERS WILL BE CONVENED AT WASHINGTON, November 9, 1898, for the purpose of examining candidates for admission to the grade of assistant surgeon in the United States Marine Hospital Service. It is desired that applications for this examination be made before November 1.

Candidates must be between 21 and 30 years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.

The following is the usual order of the examination: 1. Physical. 2. Written. 3. Oral. 4. Clinical.

In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography by the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene.

The oral examination includes subjects of preliminary education, history, literature and natural sciences.

The clinical examination is conducted at a hospital, and when practicable, candidates are required to perform surgical operations on the cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order, as vacancies occur.

Upon appointment, the young officers are as a rule first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago or San Francisco.

After five years' service, assistant surgeons are entitled to examination for promotions to the grade of passed assistant surgeon.

Promotion to the grade of surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant surgeons receive \$1600, passed assistant surgeons \$2000, and surgeons \$2500 per year. When quarters are not provided, commutation at the rate of \$30, \$40 or \$50 a month, according to grade, is allowed.

All grades above that of assistant surgeon receive longevity pay, 10 per cent. in addition to the regular salary for every five years' service up to 40 per cent. after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses. For further information, or for invitation to appear before the Board of Examiners, address the Supervising Surgeon General, United States Marine Hospital Service, Washington.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION will hold its annual meeting in Memphis, November 8, 9 and 10. This promises to be one of the most successful sessions in the history of the association. Papers have been promised by many of the leading surgeons and gynecologists of the country, especially of the South. Members of the medical profession are earnestly and cordially invited to attend.

THE PSYCHIATER is the name of a new journal which has issued its first number. It is to appear quarterly from the Illinois Eastern Hospital for the Insane. The articles for the initial number are all valuable.

DR. W. E. PARKER who has been at Santiago as acting Assistant Surgeon has resigned his position in the Army. Although having had yellow fever, he looks hale and hearty and ready to resume practice.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

INTRAVENOUS INJECTION OF NORMAL SALT SOLUTIONS.—H. T. Hanks publishes in the May number of the *American Gynecological and Obstetrical Journal* a paper read before the Women's Hospital Society on the use of salt solution in the treatment of

shock after accidents and operations. He believes the danger to be due to more than one cause. Undoubtedly loss of blood is first, traumatic injury of soft parts second, while later come septic absorption, obstruction of the bowels and suppression of urine. Any one of these several conditions, when present, requires prompt and wise treatment, or death quickly follows. Shock follows severe traumatism as surely as too great loss of blood. In any operation either is to be avoided as far as possible. When, however, dangerous shock comes on notwithstanding efforts to prevent it, nothing can take the place of intravenous injection of salt solution. Hanks injects it at a temperature of 115 deg., using from one to three pints, as may seem to be demanded by the condition of the patient. When the desired pulse tension is restored the injection should be stopped. Hanks refers to the cases reported by Stimson in 1896, and especially to the fourth case, which was a most remarkable one. He then remarks: "I served my time in the Albany City Hospital, under the late brilliant Dr. Alden March. We had many railroad accidents then. No patient ever recovered who was as severely injured as Dr. Stimson's patient was. I believe that the intravenous injection saved his patient's life, and I believe no other treatment would have done as well."

Chill is not likely to occur if the injection is used hot. Should it, however, occur, morphin and brandy hypodermically will quickly relieve it. Failure is frequently due to the injection of too small an amount of fluid. Should improvement not be maintained, a further injection may be given later on.

Hanks is convinced by his experience that there has been no recent improvement in the management of patients suffering from loss of blood and from shock, and other pathologic conditions attended by alarmingly feeble pulse, that will at all compare with this method of intravenous injection of salt solution. For some years he resorted to it in desperate cases, but of late he has come to consider it of so much importance that he takes his apparatus with him to all operations. This is not because he expects a severe loss of blood during the operation, but because the patient may have lost much blood before the doctor's arrival, or because the operation may be unduly prolonged or the patient may be suffering from alarming shock and unexplained feeble tension of arterial circulation. The writer reports eight

cases which show the remarkable effects of intravenous infusion and sums up in the following conclusions:

1. Proper preparation before an exhausting operation, by systematic stimulation or by intravenous injection.
2. Intravenous injection of two quarts or more of normal saline solution after dangerous hemorrhage.
3. Intravenous injection for bad shock, using three full pints or more of the solution.
4. Intravenous injection for remarkably feeble pulse after, or even before, operation. Use from one to three pints.
5. Intravenous injection for septicemia, especially when an operation is decided upon. Use from one to three pints and repeat if bad symptoms return.

Finally, he urges all surgeons to teach their assistants how to insert the injection-canula, as no minor operation will ever bring better results than this operation when employed in the emergencies suggested.

THE POST-OPERATIVE USE OF INTRAVENOUS SALINE INJECTIONS.—In the *Medical News*, September 10, 1898, Eugene Boise has an interesting article on the use of salt solution. The five post-operative conditions which endanger the life of the patient are: (1) hemorrhage, (2) shock, (3) sepsis, (4) uremia, (5) intestinal obstruction.

He believes the intravenous route should have preference over all others, because, first, by the use of a proper technic there is practically no more danger than by any other route; second, it supplies fluid to the system most quickly and most certainly; third, it brings heat most directly to the cardiac and arterial ganglia, and fourth, by this method the stimulating effect of the saline solution on the heart muscle is more immediate and pronounced.

In exceptional cases subcutaneous injections may preferably be used. In certain cases it may be well to supplement intravenous injections with high rectal injections. But the intravenous method should be the rule, the judgment of the operator telling him when it should be aided or supplanted by one or both of the other methods.

He believes the solution should be used as hot as can be borne safely, say at a temperature of 115 to 118 deg. Fahr. Whether

the post-operative condition is one of depression or excitation, heat as thus applied will be beneficial. In acute anemia, raising the temperature of the fluid circulating throughout the system will aid in re-establishing physiologic activity, whether the anemia be caused by hemorrhage or the exhaustion consequent on the disease itself.

In shock, in dynamic ileus, in uremia, the addition of hot saline solution to the blood is beneficial. In hemorrhage death is caused by sudden anemia of the nerve centres. If the blood vessels can be quickly refilled by a fluid which is not injurious to the normal blood, life will be preserved and all the organs will continue their physiologic activity. The normal saline solution has proven the most acceptable. It not only distends the capillaries and arterioles, but dilutes the blood remaining in the vessels and renders it available for purposes of nutrition. It seems to exert a directly stimulating effect on the exhausted nerve centres, and this effect is more rapidly produced if the solution is hot.

In post-operative shock, a condition in no sense dependent on hemorrhage, this use of hot saline solution has proved one of the most valuable therapeutic measures we possess. The beneficial effect is not merely the result of the additional fluid thrown in suddenly, but is largely due to the fact that the solution is hot. The heat proves directly sedative to the irritated cardiac and vascular ganglia, promoting relaxation of the muscular spasm of both heart and arteries and a rapid readjustment of the circulatory conditions. To obtain the best results it is necessary that the injection should be into a vein rather than into an artery, that the solution may be carried to the heart and arteries as rapidly and with as little dilution as possible.

In sepsis also recent investigations have demonstrated the great value of intravenous injections. Testimony of an increasing number of operators in all parts of the world is accumulating, establishing the value of the saline solution in cases of grave sepsis.

Department of Obstetrics and Gynecology.

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

SYMPHYSIOTOMY.—A. Pinard publishes the annual report of the Clinique Baudelocque upon symphysiotomy, covering the period from December 7, 1896, to December 7, 1897. In ninety-seven cases of deformed pelvis, intervention was necessary in twenty; symphysiotomy, seven; forceps, three; Cesarean section and utero-ovarian amputation, one; gastro-hysterectomy, two; basiotripsy upon the dead child, six. Symphysiotomy was performed twice upon primiparæ, five times upon multiparæ—in one of the latter for the second time. In this case the cicatricial tissue was torn during the passage of the head, causing a laceration, extending into the vagina but not involving the urinary organs and healing satisfactorily. Symphysiotomy was performed six times for rachitic pelvis, once for obliquely oval pelvis. All cases presented by the vertex at the superior strait. Three were delivered by forceps, four by version. The final results were seven living children, six living women. The single maternal death was that from sepsis of a profoundly albuminuric primipara, in whom the autopsy showed a deep infection of the wound, which had apparently healed by first intention. Pinard advises drainage of the wound if it is not clean and dry; in other cases it may be completely closed.—*Annales de Gynécologie.*—*Am. Jour. of Obstetrics.*

WALCHER'S POSITION.—Huppert describes the principles of Walcher's position during labor and relates its results in twenty-one applications at the Dresden Maternity Hospital. Pelvic contraction in some form was present in every case, usually the flat rachitic type, with diameters varying from six and one-half to nine centimeters. In eighteen cases the employment of the method was followed by the desired results; in ten instances, despite the increased diameters, normal delivery was impossible. An increase varying from one-half to one and one-half centimeters was observed in each instance. A point of great impor-

tance was noted, viz.: that Walcher's position caused an immediate increase in the severity and regularity of the labor pains. Another point to be borne in mind is that this position is of benefit *only* if the fetal head is yet movable above the brim, or has entered the inlet with a small proportion of its diameter, and it is almost essential that the membranes should be ruptured. This makes it quite applicable in tedious cases where rupture of the membranes has occurred. The position was sustained from twenty minutes to three hours, according to the size of the fetal head and the degree of pelvic contraction.—*Archiv. für Gyn.*—*Amer. Jour. of Obstetrics.*

VAGINAL CELIOTOMY.—Dr. Theodor Landau, in discussing the indications and contra-indications for vaginal celiotomy, contends that all plastic and orthopedic operations on the normally-sized or slightly enlarged uterus and uterine adnexa can be done by the vagina, as in ovarian resections, repositions of uterus, etc. Myomata of the uterus up to the size of a child's head can be operated in this way, be they interstitial, subserous or submucous. Unilocular tumors of any size can be successfully attacked per vaginam, but in multilocular tumors this route may offer the greatest difficulties. Malignant tumors must never be operated by vaginal celiotomy, neither papillary developments nor dermoid cysts, if any adhesions exist.

The operation is contra-indicated in every instance of malformation of the genitalia, because one can not become acquainted with the situation from the vagina.

It is adapted to the various stages of extra-uterine pregnancy except where chronic diffuse inflammation of the internal genitalia has occurred or the ovisac extends as high as the navel.

Extirpation of inflamed adnexa, unilateral or bilateral, by vagina is discountenanced. Even though the operation is successful, the majority of cases are not benefited. A special objection to its use here is the increased danger to the bladder, ureters and the danger of securing blood vessels, owing to retraction and shrinking of the inelastic pelvic ligaments. All pelvic viscera are then easily torn, and hemorrhage often can not be controlled until hysterectomy is performed. In all cases in which the uterus does not come down when pulled upon, or in which descent is simulated by extension of the cervix, while the

vagina remaining *in situ* is bent obtusely on the upper part, vaginal celiotomy is condemned.—*British Medical Association Transactions, 1898.*

Department of General Medicine.

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

TREATMENT OF SIMPLE ULCER OF STOMACH.—From the fact demonstrated by Lyon and Mathieu that simple ulcers of the stomach are started thus: first, simultaneous interstitial lesions of the mucosa and irritation of the glandular system causing oversecretion; second, diseased mucosa undergoing auto-digestion from increased activity of the gastric juice, it follows that the chief indication is to suppress, first, all causes of gastritis; second, saturate or at least attenuate hydrochloric acidity. Ferric chloride, arsenic, iodoform and iron in any form tending to increase hyperacidity are to be discarded, says Mathieu.

The stomach tube should never be used at the time the ulcer is angry; hemorrhage and perforation may always follow such procedure. As to the view of dressing the sore with bismuth sub-nitrate, the best is to administer it directly by the mouth. When in the stage of acuteness, the patient should be fed by the rectum in the manner recommended by Mathieu. On the first day, give several enemata of salt and water, say from 205 to 300 grammes, which is sufficient to help him out for 24 and even 48 hours, while at the same time it educates the rectum to its new work. Next, to the salt and water are added fresh eggs, thoroughly beaten, the nutritive strength of which per rectum is equivalent to that of peptones of good quality. Finally, if the rectum be tolerant, substitute milk for salt and water.

The Carlsbad cure does not lower the hydrochloric secretion. It brings about a more rapid digestion through action on the stomach's motion. It is therefore commendable only in cases of advanced period when the ulcer is indolent; and, on the contrary, it is detrimental in the stage of activity.

Concerning surgical interference against hemorrhage, Mathieu

believes it is to be reserved for exceptional cases; of course, it is indicated when hemorrhage is repeated, tenacious, incoercible, but not after one single hemorrhage, as abundant as it may have been, for in such cases it is a fact that medical treatment is nearly always successful. Surgical treatment is chiefly indicated in chronic ulcers of some standing from which usually arises the form of Reichman's disease.—*Soc. de Thérapeutique, L'Illustré Médical, No. 4.*

TREATMENT OF RHEUMATIC TORTICOLLIS AND OF LUMBO-ABDOMINAL NEURALGIA.—Dr. Mériel, of Toulouse, reports the following cases and lays stress on the use of methyl salicylate.

OBS. I. *Torticollis*.—L. M., 50 years, arthritic. Torticollis located in the trapezius muscle. Inclination being on one side only, the left side, shows that only one of the trapezii is affected. The sterno-mastoid muscle is not painful. Thirty drops of methyl salicylate are applied, and the parts are covered with absorbent cotton and oiled silk. The same evening marked improvement. Night good, and on the following evening patient was found running his loom.

OBS. II.—*Torticollis*.—C. M., 30 years, parents arthritic. Suddenly during the night June 18 severe pain in the left sterno-mastoid; can not hold his head. From thirty to forty drops of methyl salicylate are applied over the retracted muscle. Two hours later patient gets up and moves his head. In the afternoon, mostly all the movements are regained and the next day no pain whatever is experienced.

OBS. III.—*Lumbo-abdominal Neuralgia*.—J. B., 47 years. On June 3 pain in the lumbar region, slight at first, it is rapidly aggravated, irradiating toward the abdominal paries, nearing the anterior superior spinous process of the ilium and the region of the thigh. Movements of the trunk and the act of walking very painful. Patient is compelled to keep the reclining position. The diagnosis of lumbago and nephritic colic having been duly considered and eliminated, it is positively a case of lumbo-abdominal neuralgia. From thirty to forty drops of methyl salicylate are applied *loco dolente*. Half an hour later pain is bearable, patient can turn around in his bed. Same evening another application is ordered, which causes smarting only for a few minutes. In the night patient sits up

in bed. Same treatment is applied the next day and on June 6 patient is entirely well.

This shows that methyl salicylate can be used in various cases. The treatment of neuralgia, sciatica, in particular, with methyl salicylate has given good results in the hands of Lemoine, Renon; so it has, too, in a case of zona reported by Chambard Henon.

The reports suggested the use of methyl salicylate in lumbo-abdominal neuralgia with the good result here stated. Attention is called to the rapid relief obtained, much more so than by the usual means, and also to the short duration of the torticollis.

The use of methyl salicylate in the treatment of rheumatic affections is a real progress in therapeutics. It is less dangerous and better tolerated than the sodium salicylate, for which it is a most excellent substitute. It is a new specific for rheumatism, and, to the successful cases reported above, other personal observations from Dr. Mériel may be added 9 cases of subacute and chronic rheumatism, 3 cases of acute articular rheumatism, 2 cases of sciatica, 1 case of lumbago, in which the usual treatment had failed.

But in the present article attention is directed merely to the use of methyl salicylate in torticollis and lumbo-abdominal neuralgia, in which cases it had never been tried before.—*Médecine Pratique, Gaz. Hebd., August 28, 1898.*

Department of Therapeutics.

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

IN A RECENT NUMBER OF THE *Supplemento al Policlinico*, Sanarelli, the discoverer of the bacterium icteroides, publishes a review of his first experiments with his curative serum for yellow fever. The preparation of the serum differs somewhat from that of the more common antitoxins in that it occupies a much longer time on account of the exceptional difficulty which animals have in tolerating large doses of the virus; with a contin-

uous intensive treatment in the horse it takes from twelve to fourteen months to procure a serum of sufficient strength. So far Sanarelli has been unable to discover any antitoxin in the blood of immunized animals; his serum is a germicide, not an antitoxin—to be of service it must be used promptly. Sanarelli disagrees with Sternberg in the theory that the intestinal tract is the seat of the bacteria, and concludes that anuria, or diminished renal secretion, with albuminuria is much more typical of fatal cases than hemorrhages or black vomit. Finally, any curative efforts are in vain when symptoms of uremia are present.

The first experiments on eight patients proved these contentions; four, who were already anuric, died; the others recovered. The next series of observations was compiled at San Carlos do Pinhal, in Brazil, where a violent epidemic was raging. The serum used was that of a horse, and its intrinsic harmlessness was demonstrated in the person of the discoverer, who injected large doses as a preventive into his own body without suffering any unpleasant consequences. Of eight cases treated by subcutaneous small doses repeated, two died. It was then decided to practise intravenous injection of large doses, the "intensive" method. Of fourteen patients so treated, four died. In all, out of twenty-two cases, six only were lost. Sanarelli is unwilling to make any deduction from these figures, but he draws attention to the fact that the prevailing epidemic was of the severest type, with a mortality of over 80 per cent.; that all the cases treated were of a typical and severe nature, and that the presence of the bacillus icteroides was often demonstrated in the blood of patients during the course of the experiments. The preventive value of the serum was demonstrated at the prison at San Carlos, where four cases of yellow fever had followed in rapid succession. The hygienic surroundings were bad, the inmates occupying one common chamber. No further cases were reported after the vaccination, although the fever continued to devastate the surrounding district.—*The Therapeutic Gazette*.

PHENIC ACID IN TETANUS.—Dillon Carberry, writing in the *Therapeutic Gazette*, says: "The use of phenic acid in cases of tetanus, devised by Baccelli some years ago, has many upholders

here (Rome). Dr. Ascoli, at a late meeting of the Royal Academy of Medicine, made an astonishing comparison between the relative values of the serum of Behring and Tizzoni, and the cure by phenic acid. The cases so far reported give the following results.

Treatment by Tizzoni's serum, died, 8 in 40.

Treatment by No. 1 Behring serum, died, 4 in 40.

Treatment by No. 2 Behring serum, died, 2 in 9.

Treatment by phenic acid, died, 1 in 30.

Leaving a considerable balance in favor of the carbolic treatment.

There is great tolerance for the drug in tetanus; the use of large doses is indicated. For subcutaneous injection a 3-per cent. solution is used; the dose varies from one-half to ten grains. The maximum dose for the twenty-four hours seems to be forty-five grains. Local baths may also be used with advantage.

TINCTURE OF MYRRH IN DIPHTHERIA is recommended by Dr. Ströll, writing in the *Allgemeine Medicinische Central Zeitung*. The mixture he uses is composed of tincture of myrrh, 4 parts; glycerin, 8 parts; distilled water to make 200 parts. This is given very frequently every hour or even every half hour during the day and every two hours at night, infants up to the age of two years taking a large teaspoonful, older children double that quantity, and adults three times as much. This is continued until the membrane has nearly disappeared, when the doses are only given every two hours. After all the membrane is gone the treatment is continued for a couple of days, the interval between the doses being increased to three hours. This, of course, is with the view of preventing recurrence.

TREATMENT OF GRIPPE.—The following prescriptions are recommended by Lyon for certain of the symptoms of influenza. For the coryza, particularly if it is marked and the discharge purulent with or without epistaxis, he employs the following:

℞ Menthol.....	grains vii.
Boric acid	ʒ ii.
Vaseline	ʒ ii.

A little of this is placed in the nostril, with the finger, five or six times a day, or the following powder may be used:

℞ Cocain hydrochloride	grain i.
Menthol	grains ii.
Boracic acid	ʒii.

A small pinch of this is snuffed up the nostril a few times a day. If irrigation of the nasal cavity by means of hot boric acid water is needed, it should be done with care lest infection of the eustachian tube takes place. For the sore throat and laryngitis he recommends hot water compresses to the throat. Inhalations of steam laden with the following drugs, which are placed in the hot water, are useful:

℞ Menthol.....	grs. xv.
Alcohol (70 per cent.)	ʒi.

A teaspoonful of this to be added to a pint of hot water, and at the same time another teaspoonful of tincture of benzoin may be poured in and the steam inhaled. Sometimes gargling with very hot water, to which has been added boric acid, is useful, or two teaspoonfuls of the following mixture may be placed in hot water and used as a gargle:

℞ Cocain hydrochloride.....	
Morphin hydrochloride, aa.....	aa grs. ii.
Antipyrin	ʒss.
Potassium bromide	ʒi.
Aquæ dist.....	ʒii.

In the early stages of bronchitis without expectoration, but with cough, cherry laurel water, paregoric, tincture of hyoseyamus, aconite or benzonate of sodium are useful. The following may be prescribed:

℞ Extract, hyoseyami fld.....	ʒi.
Aquæ laurocerasi.....	ʒiii
Syr. toltan	
Syr. aurantii florum.....	aa ʒvi.
Syrup	ʒiv.

A dessertspoonful every two hours, or

℞ Pulv. scillæ	ʒi.
Quinin sulphatis.....	
Pulv. ipecac. et opii	aa ʒss.

Make into twenty cachets and take three to five a day. Or the following may be employed:

℞ Morphin hydrochloride	gr. i.
Cocain hydrochloride	grs. ii.
Antipyrin	ʒss.
Aquæ	ʒiv.

Three to four teaspoonfuls a day in a little hot whiskey or rum.

For bronchitis with abundant expectoration :

℞ Terpin hydrate ℥ii.
Glycerin and syrup, a sufficient quantity to make ten pills.
Three to five a day.

Or :

℞ Terpin hydrate
Benzonic acid aa grs. xxiv.
Pulv. ipecac et opii grs. xii.

Make into twelve pills and take six a day.

—*Revue de Thèrapeutique Médico-Chirurgicale.*

Miscellaneous.

PRURITUS PALMARUM PATRUM URBIS.—The disease known by the title above set forth is hardly able to be called a new one. It was well known in classical antiquity, and Shakespeare makes Brutus reproach Cassius with being subject to it in their celebrated quarrel before the battle of Philippi. Its external seat is expressed in the word palmarum, and, although some authors say that it affects the sole as well as the palm, they have evidently been lead into error by the similarity in sound of the English word “soul,” to which, under the name of anima, the classical authors refer as its internal seat.

While the best authenticated records give no evidence of its existence among the American Indians before the advent of the white men, it is well known to have been extremely prevalent in the old world; not only in France, Portugal and Spain, but also in Great Britain, so that its introduction into the colonies of all these powers was comparatively easy. It was not, however, active in Holland or Sweden, and seems to have been comparatively rare in the Dutch and Swedish settlements. So, too, few cases seem to have been brought into New England, Pennsylvania, Maryland or Virginia; and the climate of British North America generally in the early days before the forests had been destroyed was apparently unfavorable to its extensive spread. During the Revolutionary War it was almost in complete abeyance; and, although prior to the Civil War it had now and again broken out in rather severe epidemics, especially in New York

and Philadelphia, it may be said to have first become beyond control during the reconstruction period in the Southern States. During this time it was likewise rife in Washington, thence extending throughout the Union.

Concerning its etiology and pathology, which are best considered together, there is little of certainty to be said. Despite its local manifestation, it is a constitutional affection, by many thought to be hereditary, and by some said to have had its origin in the ingestion by the progenitors of the human race of an apple, which had been envenomed by the bite of a serpent. Others claim that it constantly originates *de novo*, and that it is entirely psychic, pointing in confirmation to the fact that the most skilful observers are unable to indicate any points by which, upon inspection of the palm, a diagnosis can be established. The hand must be observed in action before the disease can be recognized. Nevertheless, the affection seems to be distinctly contagious, and is apparently conveyed by the custom of shaking hands; for many, seemingly free from it before their election to city councils, have manifested its symptoms soon after their induction, with its multitudinous congratulatory manual contacts. It is true that this has been explained, not as the direct conveyance of infection, but a sort of reflex phenomenon, due to the excitation of the grasping centres of the brain.

The cardinal symptom of the disease is subjective. As the name implies there is an almost intolerable itching in the palm. It is usually observed soon after the patient has taken his seat in a municipal council or similar body. At first he is loath to communicate to others the fact of his affliction; but there are certain peculiarities of speech and demeanor by which the subjects of it learn to recognize each other, especially during the process of passing bills in which valuable privileges or opportunities for profit are granted to individuals or corporations. Being extremely sympathetic, a good understanding is soon reached among them, by which their united efforts are bent to secure for mutual benefit the means of palliation, which the more experienced have learned to obtain and apply.

Among the objective symptoms is often a tendency to speech-making of the patriotic or of the Pecksniffian order, although this is not invariable; for some of the most chronic cases show

a tendency to persistent silence in public. The mathematical faculties, for addition and division especially, are much strengthened. "Solid voting" is almost pathognomonic. Close observation shows a sign of which the victim is entirely unconscious, a quick nervous opening and shutting of the hand several times in succession, upon mention of "bills," "franchises," "boodle," and similar technical terms. Nor are the subjects of the disease likely to observe this tell-tale symptom even in others.

Treatment.—Palliation is temporarily secured by the application to the seat of distress of articles of value, as gold, silver, gems, bank notes, stock certificates, bonds and the like. After being pressed for a few seconds upon the palm, they must be transferred to the pocket or bank account of the sufferer. While this succeeds in allaying the irritation for a certain time, it usually returns in a much more violent form, and a corresponding increase is necessary in the strength of the palliative.

Radical treatment is of a surgical nature, and is seldom applied; but has been completely successful in all cases in which it has been thoroughly carried out. It consists in the excision of the offending members from the body politic by indictment, conviction, and imprisonment of the subject of the disease, and of the persons supplying palliatives. The latter is often more efficacious. The operation may fail in any of its stages. In two famous instances in Pennsylvania, the failures were due to pardons.

Prevention.—As in most epidemic or endemic diseases, this is to be preferred to treatment, and is easier. It consists in careful scrutiny by voters of the character of candidates for public office, and in refusal to vote for those supposed to be affected, or for the re-election of those who have manifested symptoms while in office. Only by a rigid quarantine of this description can the contagion be kept out of legislative bodies.

The importance of the subject lies not so much in the effect of the disease on the individuals affected as in its deleterious influence upon the welfare of the community. For a striking example of this, the continued prevalence of typhoid fever in Philadelphia will suffice. The two diseases must be suppressed together, and the only way to do it is by votes at the municipal election.—*Philadelphia Polyclinic.*

FIVE CASES OF JAUNDICE COMPLICATING TYPHOID FEVER are reported by Da Costa in the *American Journal of Medical Sciences*. A study of these and other cases shows that the jaundice does not usually set in until the middle or latter part of the fever, though it may appear earlier. In one of the cases reported it appeared about two weeks before the beginning of the typhoid stadium, and vanished at about the time the fever began. When this complication is present, the disease is usually severe. There is often delirium and high temperature. Chills are rather common; pulmonary congestion and vomiting are frequent. The urine contains bile and usually albumin and casts. The stools are rarely clay-colored, but usually like dark typhoid stools. Epistaxis is frequent and is in relation to the intensity of the jaundice. The jaundice is thought to be hematogenous, because of the character of the stools and of the fact that the liver commonly shows granular or fatty degeneration, although at other times obstruction is present. Of fifty-two cases collected by Da Costa, death occurred in thirty-two. In twenty-eight of the total number there were evidences of parenchymatous degeneration of the liver. The method of treatment does not seem to have influenced the production of jaundice; the latter has occurred at every age, except early childhood. Studying other affections of the liver complicating typhoid fever, Da Costa has found twenty-two cases of abscess. The most important diagnostic points of this complication are prolonged and repeated chills, great variations in temperature, profuse sweating, and pain in the region of the liver. Jaundice is likely to be absent. A sense of fluctuation is a valuable diagnostic point when present. The commonest causes of hepatic abscess in the course of typhoid fever are metastasis, pylephlebitis, or typhoid ulceration in the biliary passages, with secondary suppuration. Da Costa is inclined to believe that there may be a biliary typhoid without intestinal lesions, as a result of the direct action of the micro-organisms or their products on the liver. Complications due to affections of the gall bladder are common, but they are sometimes obscure. Cholecystitis is a grave complication, thirty-nine deaths having occurred among fifty-eight cases collected by Da Costa. Pain is the most constant symptom, and is often referred directly to the gall bladder. Tumor is of great importance, but is not a constant

symptom. Jaundice occurs in less than one third of the cases. Nausea and vomiting are common, while chills are conspicuously absent. The condition can be confounded with appendicitis, the pain being, however, commonly higher.

IRREGULAR MENSTRUATION IN YOUNG WOMEN DUE TO ANEMIC CONDITIONS.—In writing on this subject in the *Vermont Medical Monthly* Dr. H. Edwin Lewis says: “The young physician just starting into practice can not help but be impressed with the frequent occurrence of menstrual disorders in young girls during the period just succeeding the age of puberty. The metamorphosis of a girl into a woman, consisting as it does of structural and functional changes throughout her body, in many instances leaves behind pronounced alterations in the quality or even quantity of the blood current. * * * Combine the history with the objective symptoms and the diagnosis is clear of chlorosis or green-sickness. The absence of cough or pulmonary symptoms excludes the dreaded “consumption,” but we have instead a condition of the blood in which the essential constituents are diminished and the whole quality of the life-giving current so depreciated that the various organs of the body are unable to perform their normal functions.

How this chlorotic condition can best be corrected is the next question, and one which because of its frequency concerns every practising physician. Countless remedies have been presented to the profession, but far and foremost above them all is iron. In order to be efficacious, however, the iron should be in its most readily assimilable form, and until recently the carbonate and albuminate have been supposed to present this requisite in the highest degree. But since manganese has grown in favor as an adjunct to iron, a new preparation has been submitted to the medical profession, and in every way it has proven itself an ideal one. I refer to Dr. Gude’s preparation of the peptonate of iron and manganese. This admirable combination of iron and manganese is readily taken into the human economy and appropriated to its needs without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation and excretion. It should be given in water or milk, in teaspoonful doses after meals, and its administration is invariably followed by the results desired.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment consisting of careful attention to diet and exercise.

NEURITIS OPTICA, LASTING FOUR WEEKS—COMPLETE RECOVERY—In the *Neurologisches Centralblatt*, No. 9, 1898, Dr. H. Higier reports a case of a man, 38 years old, who, after a violent emotion, was suddenly attacked by neuritis optica. Other nuisible agents could not be detected. Besides the ambilateral amaurosis, pressure on the bulbs and the lateral movements of same, proved painful. Mydriasis and no pupillar reaction. Result of ophthalmologic investigation showed extreme swelling and capillary redness of the papillæ, and their boundaries were effaced. Dilatation and meandering or serpentine (Schlängelung) of the veins existed.

After about six injections of pilocarpin (0.2: 10.0 p. d., one syringeful), rapid improvement. Later on strychnia pills, continued for a time. Complete recovery, except slight paleness of the papillary halves toward the side of the temples, together with blinding phenomena, corrected by dark protective spectacles.

MYOTONIA CONGENITA.—Dr. Funke contributes to the rare cases of Thomson's disease a new casuistic case of myotonia congenita.

A recruit of the Eighty-first Regiment of Infantry, muscularly built, showed the remarkable phenomenon of muscular rigidity whenever the temperature became cold. Since cold is the provoking agent, we have here a case of that morbid state which Eulenburg describes as Paramyotonia congenita.

The cold causes, and effects by reflex action, temporary spastic contraction of muscular tissues and thereby disturbance of nutrition of the muscle. It is a spastic angioneurosis of the voluntary muscle apparatus, based on a congenital diathesis.—*Deutsches Militär. Zeitschrift.*

TIC DOULOUREUX.—In the *Nederl. Tijdsch. voor Geneesk.* Dr. Hers speaks of a case of tic douloureux which was cured by the removal from the bladder of a stone of the size of a pigeon's egg. The case must therefore be considered as one of reflex action. The patient was a man of 57 years of age. He had

suffered from the tic ever since 1880. A nerve resection of a small portion of the second branch of the trigeminus did not effect a cure. Electricity, suggestion treatment, etc., all proved powerless. As soon, however, as the stone in the bladder was removed, the patient recovered and could again take solid food. His virility also returned and his wife is now pregnant.

DR. MURPHY'S startling proposition for the treatment of tuberculosis of the lungs, already referred to in our "*Department of General Surgery*," is summarized in the *British Medical Journal* somewhat as follows:

"Anything that will favor the deposit of connective tissue around the destroyer will cure the disease. In kindred cases, for instance, tuberculosis of the knee we set at rest the tissues so afflicted. With rest new tissue is formed and the diseased germs enclosed in a case from which they can not possibly escape. We utilize the life of the healthy tissue to repair the destruction of the disease. While the knee is at rest the tissue forms more rapidly, and gradually the diseased part is made by nature to disappear. Subjects in the dead house will prove that this theory holds good in the lungs where tuberculous germs have begun an attack. Necropsies have revealed numberless persons whose lungs were once affected by the bacillus, but nature has cured her ailments alone.

"How can we put one lung at rest, to sleep as it were, put it off duty for a time, while we allow that rest to form the new tissue needed by nature to smother the bacilli? We have the best pathological evidence that it will repair. Surgical operations prove that.

"Pleurisy is a sequence of tuberculosis in 83 per cent. of the cases. Out of 164 cases of an eminent surgeon, but four were fatal where the operation of empyema was performed. Pleurisy is a curative and reparative to tuberculosis. Tuberculosis is repaired by pleuritic effusion. We must treat the lungs as we treat tuberculosis in other parts of the body. The lung has the greatest capacity of repairing tissue. How, therefore, with such facts known, can we aid and assist the lung in its efforts to encapsulate? We must put it in a condition to build up a coffer-dam around the diseased part. That is accomplished by nature in three ways: First, by removing the ribs and allowing

a contraction of the chest over the diseased part; secondly, by opening the chest wall and rendering aid by direct injection into the pleural cavity. We inject into the pleural cavity some substance not poisonous that will remain for a long time, some substance not easily absorbed. The third method is by opening and allowing the chest wall to sink over the tuberculous cavity. I have operated by the latter method, and found that the cavity was in time obliterated. The method with the admission of air has the same curative effect as allowing the collapse of wall. The injection of a gas or fluid into the pleural cavity, nitrogen gas preferred, is the ideal treatment for tuberculosis of the lungs. The gas being very slowly absorbed may be allowed to remain for months without injury to the patient until the disease is cured.

“That irritating and annoying cough prevalent among consumptives is undoubtedly relieved by the injection of the gas into the pleural cavity. In some experiments the cough has entirely disappeared. With the operation, which is a simple one, there is no pain and no discomfort. There is no difficulty in executing the operation. There are some risks, of course, but none greater than the average surgeon encounters in ordinary operations. It may be said that there are possibilities that the air will not enter the pleural cavity when there are adhesions, These adhesions can easily be removed. The pathology upon which this is based is the quiescence of rest.

“With this method of treatment one may attack the earliest stages of the disease. It may be caught in its very incipiency, when the patient enjoys fairly robust health and will not be endangered by any shock that may occur.

“The arguments for it are the methods of repair. The prominence of tuberculosis of the lungs is due to the opportunities for infection, and not to lowered resistance. Rest favors resistance, and by the injection of the nitrogen the diseased lung will be allowed to rest. Any functionary useless organ is the seat of connective tissue overgrowth. Thus, as the lung is a functionary organ at rest, the tissues rapidly form and enclose the destructive germs in a prison. The connective tissue overgrowth is the process by which tubercle is walled off.

“The cessation of the expansion of inspiration causes the fibres to arrange themselves as is best suited for walling. The

collapsed tissue shuts off blood and lymph channels, which are routes of infection. Connective tissue grows best in areas of blood supply. Tuberculosis long remains a local disease. The views of Strauss, Koenig, Cabot and Runeberg substantiate this. The conclusion is irresistible that in most cases of tuberculosis, as we see them, this is the operation of election."

GOVERNOR ADAMS in his opening address before the American Medical Association thus sizes up the doctors: "With all their ability they are as modest as they are skilful. Doctors are ever tolerant, indulgent and generous, unless called to consult with a member of some rival school. There are several systems of medicine and curing, and my experience with legislative bills relating to recognition and practice has given birth to a suspicion that the first principle of each school is that the others ought to be abolished, compelled to cease work or go to jail. Personally, my condition has much to do with my faith in schools and systems. When I feel lonesome and forsaken, when the newspapers, the politicians and the disappointed turn their pens, tongues and scalping knives upon me, just because I was not as wise as they would be in the conduct of my office and in making appointments, then I feel the need of the soothing, sympathetic treatment of the Christian scientist and faith cure. When, in what you might call, the loafing, novel-reading degree of invalidism, I call in my homeopathic friends. Their remedies seem as pleasant as their gentle touch and manners. their dissertation upon the powers of atoms is as fascinating and convincing as a chapter from Tyndall or Hugh Miller. But so powerful is the influence of youth and early training that when I am stricken with a real ache and feel that there may be a call to close my account, I send for the old regular calomel doctor, and I want him quick."—*The Atlantic Weekly*.

THE LETTER OF THE CHAS. ROOME PARMELE CO., published as an advertisement, breathes the right spirit. It is fair to the profession and laity both, and, no doubt, will be appreciated.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works received as possible, the editors will be guided by the space available and the merit of the respective publications. The acceptance of a book implies no obligation to review.

International Clinics. A Quarterly of Clinical Lectures. Edited by JUDSON DALAND, M. D.; J. MITCHELL BRUCE, M. D., F. R. C. P., and DAVID W. FINLAY, M. D., F. R. C. P. Eighth Series, Vols. I and II. J. P. Lippincott Company, Philadelphia, 1898.

Volume I contains many valuable articles arranged, as is the custom with this periodical, for their clinical importance in the shape of lectures. The material has been collected not only from the American contributors but as well from foreign clinics. Of the latter, notably interesting are the articles by Jaccoud on Contraindications of the Use of Salicylate of Sodium in Visceral Manifestations of Acute Inflammatory Rheumatism, in which stress is laid upon the danger from cerebral types or from cardiac complications; by Marfan on Whooping Cough; by Drs. Biss and Hayem on Chlorosis, written independently, but both impressing the importance of rest and the administration of iron; other important articles are by Olivier on Ulceration of the Pylorus and Its Consequence, bringing out obscure points in the discussion; by Hutchins on Recurrent Epithelioma, accompanied by some excellent photo-micrographs illustrative of the pathology. The whole volume is as interesting as it is valuable.

Volume II is likewise full of instructive lectures. Dr. Senn occupies fully forty pages on the Etiology and Classification of Cystitis, an article replete with strong points of information.

Among other contributors are Drs. Ewald, McF. Gaston, F. M. Crandall, Pickering Pick, H. C. Coe, Jay F. Schamberg and others. DYER.

Electricity in the Diagnosis and Treatment of Diseases of the Nose, Throat and Ear. By W. SCHEPPEGRELL, A. M., M. D. G. P. Putnam's Sons, New York and London, 1898.

Another book to the credit of a New Orleans medical author this year.

The title shows that the work is intended to appeal more particularly to the specialist, yet there is much in it that is both interesting and useful to the general practitioner or surgeon who uses electricity in any form. This is especially true of the first six chapters, which are devoted to general and fundamental principles, to the means of generating and applying the

various currents, and to methods of illumination. Following these are descriptions of apparatus used in diagnosing ear, nose and throat affections and methods for using them. Electro-cautery, electrolysis, cataphoresis and electro-magnetic appliances are studied *in extenso*. Nearly half of the book is devoted to the treatment of the diseases in question by means of the methods just mentioned. Finally, the X-rays in general and the X-rays in oto-laryngology are given attention.

While some of the work must be admitted to be chiefly compilation, it has been well done and does not detract from the value of the personal thought which it includes and the good advice which may be found in the book. The immense amount of labor involved is demonstrated by the bibliographic references alone—*there are 565*.

The letter press work is satisfactory and the illustrations numerous and good. C. C.

A Manual of Surgery, General and Operative. By JOHN C. DA COSTA, M. D. With 386 illustrations. Philadelphia, W. B. Saunders, 1898.

The aim of the author of this work was to make a book that would stand between the text-book and the compend. In the new edition no attempt has been made to alter the character of the manual or to change its purpose. The first edition was published in 1894, so that much of the book had to be rewritten to keep it abreast of the times, many entirely new articles having been added, and a majority of the old articles enlarged, restricted or otherwise altered. Great care seems to have been taken in the revision and the book has been brought well up to date. The various operative procedures have been very judiciously placed before the student. As evidence of the author's conservatism we would quote with our approval the following from the article on appendicitis: "If the appendix is firmly fixed in the abscess-wall, do not remove it. To remove it under these circumstances may rupture the wall and allow pus to enter the peritoneal cavity where it is not protected by pads and gauze. Deaver, Murphy and others tell us always to try to remove the appendix. We do not believe this to be a safe rule to follow. To insist on removing the appendix may cause death. When the appendix is left it usually sloughs away. It is true a fecal fistula may result, but this usually heals spontaneously. Even if it does not heal, the surgeon acted properly, because a fecal fistula may be remedied by another operation, but there is no remedy for death."

We take pleasure in commending the work as a reliable guide to the student as well as to the practitioner of medicine. PARHAM.

Manual of Operative Surgery By H. J. WARING, of London. Edinburgh and London, Young J. Pentland. New York, The Macmillan Company, 1898.

This book, by a well-known surgeon, has been written with the object of serving as a text-book for the classes in operative surgery in St. Bartholomew's Hospital. But in order to make it a complete handbook for

the use of students, a description of many operations, which can not be readily performed on the dead subject, has been added.

The manual opens with an introduction which discusses the preliminaries of operations in general, the preparations for asepsis and for anesthesia, the selection of instruments, the relations of patient, operator and assistants, the technic of operations, and the after treatment.

Instead of taking up next in order the ligation of arteries, operations upon the stomach and intestines are at once considered. Herniotomies then follow. Operations upon the other abdominal organs are systematically discussed, followed by the male and female generative organs. The other regions are successively taken up, ophthalmic operations being last in the book. While then the arrangement seems somewhat peculiar, this does not detract materially from the value of the work. The book will prove a useful guide to all who do surgical work. PARHAM.

Atlas and Epitome of Operative Surgery. By DR. OTTO ZUCKERKANDL, of Vienna. Authorized translation from the German. Edited by J. Chalmers Da Costa, M. D.

The German edition of this work has been in our hands since the beginning of this year and we have had frequent occasion to test the suggestions in our course on operative surgery in the New Orleans Polyclinic.

Da Costa has done the American students a great service in providing for them such a satisfactory translation of this admirable work by a German master in surgery. There are twenty-four colored plates and 217 illustrations in the text. We can cordially commend the work. PARHAM.

A Treatise on Obstetrics. By EDWARD P. DAVIS, A. M., M. D. Lea Bros. & Co., Philadelphia and New York.

This addition to the long list of new books on obstetrics, while containing much valuable information, unfortunately presents here and there suggestions that are not wholly practicable. The chapter on Pelvimetry, for example, is full and comprehensive, but the suggestion of introducing one's fist into the vagina to obtain the transverse or oblique diameters of the pelvic cavity can hardly be approved. The chapter on Septicemia is well written, but lacks completeness.

The book bears the appearance of having been written in haste; but the occasional deficiencies met with should not detract from the value of the work as a whole. MICHINARD.

Diseases of Women. A Treatise on the Principles and Practice of Gynecology; for Students and Practitioners. By E. C. DUDLEY, A. M., M. D.; Illustrated. Lea Brothers & Co., Philadelphia and New York, 1898.

This work presents nothing new except the arrangement of chapters, and that hardly appears to be an improvement on the old conventional

method. The classification is pathologic rather than regional. For example: Chapter II treats of "Inflammations," and there we find discussed the inflammation of every pelvic organ. The chapter on displacements restricts itself to displacements of every pelvic organ. The arrangement necessitates repetition, and is somewhat confusing. The book, however, is quite readable. More space is devoted to Brandt's system of pelvic massage than the subject deserves.

MICHINARD.

A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. Third Edition. By G. BETTON MASSEY, M. D. Illustrated, 400 pages. The F. A. Davis Company, Publishers; Philadelphia, New York and Chicago, Ill.

The doctor is extremely radical in his views concerning surgical gynecology, and appears rather Utopian in his ideas of the almost limitless benefits derivable from electro-therapeutics.

The work does not confine itself to the treatment of gynecologic diseases, and includes as well maladies not within the province of the gynecologist.

MICHINARD.

Hare's Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M. D. New (second) and revised edition. 598 pages, illustrated. Lea Brothers & Co., Philadelphia.

This work is worthy of the talent of its author. It evidences painstaking care in its preparation. That a second edition was needed shows the value of the book. In arrangement, the whole scheme of the book is based on regional diagnosis. Each extremity and every organ, with its possible affections, are considered in detail. The method employed is based on similarity and differentiation in symptoms, and the symptoms evidenced in a given locality of the body are used as suggestive of a diagnosis, which is then expanded.

Illustrations are used plentifully and aptly throughout. The plates and cuts are of the best, and add materially to the value of the otherwise excellent book.

DYER.

Yellow Fever in the West Indies. By IZETT ANDERSON, M. D., EDIN. London, H. K. Lewis, 1898.

This interesting, but not systematic, clinical account of yellow fever is written by one of much experience with the disease, Dr. Anderson having practised over thirty years in Jamaica. This prolonged acquaintance alone is sufficient to give value to the writer's views.

He is a most positive non-contagionist, but believes that turning up the soil in summer is one of the causes, agreeing with most writers that fatigue, fear and depressing emotions seem to be exciting causes. He asserts that the colored race is little liable to the disease.

He makes the diagnosis on the first days by what Touatre calls "the group

of symptoms," but seems to be ignorant as to Faget's law of progressive fall in the pulse rate, although he says that the pulse is "frequently not so rapid as the temperature would lead to expect," and notes the slow pulse of the later stage. He lays much stress upon albuminuria as a diagnostic sign in the second stage. "Sporadic cases and those at the beginning of an epidemic," he truly says, "are those which usually occasion mistakes in diagnosis." The treatment advocated is in the main rational. He completely ignores the Creole foot-bath, while recommending diaphoretics. The wet pack is advised in the first stage if the skin is dry and the temperature high. The necessity for restriction in diet and for keeping the patient very quiet throughout is duly urged upon the reader. C. C.

A History of Yellow Fever. By W. L. COLEMAN, M. D., Chicago. The Clinic Publishing Company, 1898.

According to the title page the book presents "indisputable facts pertaining to its origin and cause and its present artificially acquired habitat, with reasons going to show the possibility of its complete extinction from the globe, its nature, anatomic characteristics, symptoms, course and treatment with an addendum on its twin sister, dengue," punctuation *not* ours. "Its" refers to yellow fever, although, as the latter is a "twin sister," one might suppose that "her" might be better.

The author has not succeeded in doing all he started out to do, and it is not remarkable, inasmuch as the book, including a preface and an introduction, consists of less than 140 pages, the printed part of which measures 3 by 5 inches.

The chief purpose is evidently to show that yellow fever is a disease born *de novo* in mid-ocean, on slave ships, to punish the communities dealing in or owning slaves. As a natural consequence, the diminution in the extent and virulence of the disease is said to be due to the fact that the Almighty; or rather Dr. Coleman, thinks the South has been sufficiently punished.

Full of contradictions and written in a disjointed manner, the book is printed on poor paper, contains many typographic errors, and, all in all, scarcely deserves the space given it. C. C.

A Compendium of Insanity. By JOHN B. CHAPIN, M. D., LL. D. W. B. Saunders, Philadelphia, 1898.

This small work is exactly what it purposes to be, a compendium, and from its simplicity and clearness must be of great service to the general practitioner and student. Coming as it does from the pen of one long familiar with the subject, and who has had an almost unparalleled experience with the management of insane asylums and the treatment of insanity, this book should be received with proper appreciation, and in a very short time run through several editions. 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. Volume XIV, Infectious Diseases. William Wood & Co., New York, 1898.

This volume contains interesting, complete, and up-to-date articles on the following subjects: Scarlet Fever, by F. Forcheimer, of Cincinnati; Measles, by Dawson Williams, of London; German Measles, by Forcheimer; Glandular Fever, by Dawson Williams; Cholera Infantum, by A. Jacobi, of New York; Cholera Nostras, by Theodore Rumpf, of Hamburg; Asiatic Cholera, by Theodor Rumpf; Dengue, by Sir Joseph Fayrer, Bart., London; Beriberi, by A. A. De Avezedo Sodre, Rio de Janeiro; Miliary Fever, by A. Netter, of Paris; Malta Fever, by David Bruce, British Army; Chicken Pox, by Dillon Brown, of New York.

One little criticism, if it can be called that even, we would like to offer—it is this, that in the interest and for the convenience of the general practitioner who may have to consult this work, such diseases as chicken pox and dengue would have been better placed in the volumes containing the articles on small-pox and on yellow fever. P. E. A.

The Year Book of Treatment for 1898. Philadelphia and New York: Lea Brothers & Co.

The hope expressed by the editor in the preface that the present issue will be found not less useful to the medical profession than its predecessors is absolutely legitimate. From the first to the last page the book is worth reading. At any rate it is a good book to keep within reach, for, in many instances, when the busy practitioner fails to obtain results with the usual treatment he may in consulting it find the latest information on the subject which embarrasses him, and from this alone may follow an unexpected success. The work is, therefore, commended to every practitioner. The book is handy and full of substantial references. E. M. D.

Atlas of Methods of Clinical Investigation, With an Epitome of Clinical Diagnosis and of Special Pathology and Treatment of Internal Diseases. By DR. CHRISTFRIED JAKOB. Authorized Translation from the German. Edited by AUGUSTUS A. ESHNER, M. D. W. B. Saunders, Philadelphia.

We have read this work with the most profound pleasure and profit, and feel that Dr. Eshner deserves the thanks of his professional brothers in America for his translation of this most excellent work, thereby making it available to English reading physicians. The illustrations are exceptionally good and accurate; in fact, we have seen few to equal them. Section I, devoted to the Examination of the Patient; Section II, General Consideration Upon Methods of Investigation; Section III, Special Diagnosis of Diseases of the Internal Organs, are models which reflect great credit on their distinguished author. The section devoted to the examination of urine is all that could be desired in a work on clinical medicine.

The style of the translation is free, the translator's aim being to convey the thought rather than the language of the original. The work closes with a list of most important medicaments. We earnestly hope that this volume will meet with the popularity which it so well merits.

STORCK.

Psilosis or "Sprue"—Its Nature and Treatment. By GEORGE THIN, M. D. J. & A. Churchill, London.

Dr. Thin's experience with this malady in Ceylon, the Straits' Settlements, and the Coast of China and Manilla, entitles him to write authoritatively on this most peculiar disease. The author claims that many cases of chronic diarrhea from the West Indies closely resemble the diarrhea alba of India. Numerous cases are cited which afford a guidance in the treatment of this little-understood malady. The characteristic appearance of the tongue in psilosis is well shown by three colored plates. The suggestion of Dr. Thin to substitute the word psilosis will be sure to meet the approval of all physicians. As is well known sprue is a word used in some parts of the Scottish Lowlands and in Holland to express a common disease of the mouth in children, and has no connection with the condition here spoken of. The appearance of this volume at the present time should be of more than passing interest to us, as our closer relations with the Philippine Islands and the West Indies might at an early day bring us in contact with diseases existing in or peculiar to those sections, so it behooves each of us to inform ourselves thoroughly regarding diseases of tropic countries. The typographic make-up of the book is all that could be desired.

STORCK.

Constipation in Adults and Children. By H. ILLOWAY, M. D., New York: The MacMillan Company. New Orleans: F. F. Hansell & Bro.

An excellent book, it embraces a complete study of constipation in a thoroughly scientific and intelligent manner. Beginning with introductory anatomic and physiologic considerations, the diagnosis and prognosis of acute and of chronic constipation are taken up in a systematic way; the consequences and complications are then explained; finally the question of treatment is given adequate attention, including all interesting details as to mechanical measures that may be required or useful; this is not done in a routine way, but explicit directions are given for selecting remedial measures according to the merits of the case; a formulary is included.

The second part of the book is devoted to constipation in infants and children, which is further divided into congenital and acquired, the latter subdivided into acute, chronic and habitual constipation.

The typography and binding are in keeping with the merit of the work. Illustrations are numerous and effective. I would suggest that in future editions the first page of chapters be given instead the terminal in the table of contents, for the sake of greater convenience.

The importance of a thorough understanding of this subject is so great, and an intelligent conception of proper treatment is so essential, that the volume is recommended to all physicians in whatsoever line they may be.

C. C.

Hand-Book of Materia Medica. For Trained Nurses. By JOHN E. GROFF, Ph. G. Philadelphia: P. Blakiston, Son & Co.

To those about entering upon the occupation of nursing, this work will serve as a good guide. The subject is treated in an abridged but comprehensive manner, and will meet all the requirements of the trained nurse. The chapter devoted to the consideration of weights and measures is lucid and should be carefully studied by nurses. The addition of a glossary adds value to the book. We notice that the maximum dose of potassium iodide is stated to be one ounce; we think this should be corrected to read one drachm. At the end of each chapter a list of questions is given, which can be used for self-instruction.

STORCK.

Manual of Physical Diagnosis. By JAMES TYSON, M. D. P. Blakiston, Son & Co., Philadelphia.

This work will serve only as an introductory to the study of physical diagnosis. A subject of such vast importance should not be presented in the cursory manner in which the author has done in this manual. The chapter devoted to the subject "The Making of an Autopsy," we think does not properly belong to a work on physical diagnosis, and had better be left to works on pathology.

STORCK.

PUBLICATIONS RECEIVED.

American Text-Book of Gynecology, edited by J. M. Baldy, M. D.—W. B. Saunders, Philadelphia, 1898.

Clinical Examination and Treatment of Children, by John Thomson, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Medical Diseases of Infancy and Childhood, by Dawson Williams, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Principal Poisonous Plants of the United States, by V. K. Chesnut.—United States Department of Agriculture, 1898.

Diseases of Women, by F. H. Davenport, A. B., M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Essentials of Histology, by E. A. Schaefer, LL. D., F. R. S.—Lea Bros. & Co., Philadelphia and New York, 1898.

Elements of Histology, by E. Klein, M. D., and J. S. Edkins, M. A.—Lea Bros. & Co., Philadelphia and New York, 1898.

Text-Book of Practical Therapeutics, by Hobart A. Hare, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Transactions of the Medical Society of the State of New York, 1898.

Text-Book Upon the Pathogenic Bacteria, by Jos. McFarland, M. D.—W. B. Saunders, Philadelphia, 1898.

American Text-Book of Diseases of Children, edited by Louis Starr, M. D.; assisted by T. L. Westcott, M. D.—W. B. Saunders, Philadelphia, 1898.

Text-Book of Materia Medica, by Geo. F. Butler, M. D.—W. B. Saunders, Philadelphia, 1898.

Transactions of the American Surgical Association, 1898.

Clinical Text-Book of Medical Diagnosis, by Oswald Vierordt, M. D.; authorized translation with additions by F. H. Stuart, M. D.—W. B. Saunders, Philadelphia, 1898.

Science and Practice of Midwifery, by W. S. Playfair, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Twentieth Century Practice, Vol. XV, Infectious Diseases, edited by Thos. L. Stedman, M. D.—Wm. Wood & Co., New York, 1898.

REPRINTS.

Remarks Concerning Rectal Affections, etc., by Lewis H. Adler, M. D.

The Prevention of Diseases Now Preying upon the Medical Profession.—Diseases of the Lachrymal Passages, by Leartus Connor, M. D.

The Employment of Solutions of Toluidin-Blue as Collyria.—Importance of the Early Recognition and Treatment of Acute Inflammatory Glaucoma, by Clarence A. Veasey, M. D.

Contribution to the Study of Chronic Urethritis, by Fred. C. Valentine, M. D.

Conservative Treatment of Pelvic Suppuration of Puerperal Origin.—Conservative Treatment of Fibroid Tumors by Myomectomy.—Disadvantages of Vaginal Drainage for Pelvic Abscess.—Operation for the Restoration of the Urethra and the Closure of a Vesico-vaginal Fistula, by Chas. P. Noble, M. D.

Report of Operations in Infirmary of Drs. C. & S. Briggs, by J. E. Bell, M. D.

Orthoform and Extract Suprarenal Capsules.—Glaucoma with Detachment of Retina, by Wm. Cheatham, M. D.

Advances in Preventive Medicine, by J. M. G. Carter, M. D.

Diabetic Gangrene, by N. S. Davis, Jr., M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR AUGUST, 1898.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	3	4	7
“ “ Intermittent.....	2	.....	2
“ “ Remittent.....	6	1	7
“ “ Congestive.....	1	.....	1
“ “ Typho.....	24	3	27
“ Yellow.....	.....	.....	.....
“ Typhoid or Enteric.....	.....	.....	.....
“ Puerperal.....	.....	.....	.....
Influenza.....	.....	.....	.....
Measles.....	.....	.....	.....
Diphtheria.....	.....	.....	.....
Whooping Cough.....	6	7	13
Apoplexy.....	15	6	21
Congestion of Brain.....	9	2	11
Meningitis.....	10	.....	10
Pneumonia.....	13	13	26
Bronchitis.....	4	8	12
Cancer.....	4	1	5
Consumption.....	34	31	65
Bright's Disease (Nephritis).....	19	12	31
Uremia.....	1	2	3
Diarrhea (Enteritis).....	15	3	18
Gastro-Enteritis.....	4	2	6
Dysentery.....	2	2	4
Hepatitis.....	2	.....	2
Hepatic Cirrhosis.....	4	3	7
Peritonitis.....	.....	2	2
Debility, General.....	1	3	4
“ Senile.....	14	9	23
“ Infantile.....	1	3	4
Heart, Diseases of.....	26	15	41
Tetanus, Idiopathic.....	.....	.....	.....
“ Traumatic.....	2	1	3
Trismus Nascentium.....	10	8	18
Injuries.....	12	6	18
Suicide.....	2	.....	2
All Other Causes.....	79	64	143
TOTAL.....	325	211	536

Still-born Children—White, 27; colored, 22; total, 49.

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

Death Rate per 1000 per annum for month—White, 20.00; colored, 31.65; total, 23.39.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.01
Mean temperature.....	81.00
Total precipitation.....	6.24 inches
Prevailing direction of wind, southeast.	

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No. 5.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of 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.]

INTRAMUSCULAR INJECTIONS OF THE BINIODIDE OF MERCURY IN ATROPHY OF THE OPTIC NERVE.

BY PAUL L. REISS, A. M., M. D. (PARIS); SURGEON IN CHARGE OF EYE DEPARTMENT, TOURO INFIRMARY; LATE LECTURER N. O. POLYCLINIC; LATE ASSISTANT SURGEON, EYE, EAR, NOSE AND THROAT HOSPITAL, NEW ORLEANS.

The use of mercury by the method imagined by Scarenzio is by no means new, yet it is only in recent years that this mode of administering it has become widespread, and particularly so among the ophthalmologists.

Quagliano was the first to publish a work on mercurial injections in syphilitic ocular diseases, when he used calomel in suspension in glycerin. He thought that besides the specific effect of the mercury, some beneficial action was caused by the local derivative action of the suppuration caused at the point where it was injected.

Flarer, the same year, published the history of a case of kerato-iritis cured by subconjunctival injections of calomel.

In 1871, Magni related six new observations where a cure was obtained in three or four weeks.

Quagliano and Forlanini have observed that mercury used in this way possesses great curative effects in non-syphilitic affections.

Guillio Saltini, in 1876, cited five observations gathered in the clinic of Professor Manfredi at Modena, where simple or double iritis yielded immediately to this treatment. He attaches some action, however, to the local or resolute effect.

Rampoldi, in 1884, published a work on the injection of calomel at the temporals. They are, according to him, also useful in non-syphilitic affections. In 1886 Abadie published in the *Annales d'Oculistique* an article on the tardy ocular affections of syphilis and their treatment. He has always had superior results in parenchymatous keratitis with the injections of bichloride of mercury, and also very favorable results in cases of disseminated choroiditis.

In a series of experiments after the use of injections of calomel at the temporals, Rampoldi found that the presence of mercury could be found in the aqueous humor of patients treated in this manner. The objection that was brought to bear against this mode of treatment was the pain it caused.

The soluble salts of mercury were then employed—such as the biniodide, the peptonate and the bichloride. To avoid all inflammation the injections were then made into the muscles.

The results of experiments have shown that no ill effects have been seen after the use of the biniodide of mercury, and it is with that salt of mercury, inspired by the valuable lessons taught me in Paris by Professor Panas, that I was led to try it in atrophic conditions of the optic nerve. The solution I make use of is the same that is at present used in his clinic at the Hotel Dieu, where I was fortunate enough to spend two years under his guidance and able to judge of the beneficial effects of the drug in syphilitic and other affections of the eye.

The biniodide is dissolved in olive oil which has been washed in alcohol and then sterilized.

The process of preparation consists in taking 1000 cubic centimeters of olive oil, to which is added 300 cubic centimeters of alcohol. This is mixed and left together for four or five days, being careful to agitate the mixture from time to time. The alcohol is then decanted. The oil is then free from oleic acid. After this it is brought to a temperature of 110 or 115 deg. centigrade for ten minutes, and then allowed to stand until it is reduced to 60 deg. The biniodide of mercury is at this time dissolved in the oil. The solution is filtered on sterilized cotton and put in sterilized bottles.

Every 100 *c. c.* of the oil must dissolve 0.40 centigrammes of the biniodide of mercury. It must be kept in colored bottles to prevent its being altered in its composition by rays of light.

By reason of the great muscular structure of the buttocks and the absence of the risk of coming across any large vessels, this region has been chosen as the seat of the injection. All antiseptic precautions must naturally be taken, and for that reason a platinum needle is used, which can be brought to a red heat over an alcohol flame before its introduction. It is also necessary to wash the part where the needle is to be introduced with a 1-4000 bichloride solution immediately before the injection is given. Four milligrammes is the dose given at each injection and this proportion is found in one *c. c.*, which is the quantity injected.

Paul Vibert, in his thesis presented in 1892 on the intramuscular injections of mercury in ocular therapeutics, dwells at length on the use of the biniodide of mercury in diseases of the eye, but as yet no word has been said about its use by this method in cases of partial atrophy of the optic nerve.

The appended cases will show that by its continued use, some beneficial effect can be derived in that affection; and I trust to be able to add very soon a few more observations to the above and thereby demonstrate more fully its value, even in cases where there is no specific history.

CASE 1. E. R., 19 years of age, presented himself to me March 7, 1896. His vision was R. E. 5-CC, L. E. F, 3 feet. His trouble began seven years ago. There was a gradual decrease in his sight for the last seven years; he could read until June, 1895. He has been treated with strychnia and iodide of potash for some time. The field of vision was found to be narrowed concentrically, and upon examination of the eye his optic disks were found to be white. He could not see green, and there was a central scotoma for colors.

I began the intramuscular injections that same day and continued them for forty days. He then had a rest of fourteen days, and another series was begun. At the twenty-first injection in this second series the vision was R. E. 7-CC, L. E. 7-CC, showing an increase of sight in both eyes, and on the twenty-seventh injection the sight had gone up to 15-CC in both eyes. At the end of July, 1896, his sight was 20-60 in

each eye. His sight remained at that point until October 1, when with a plus two lens his vision on both sides was 20-20. He was kept on the intramuscular injection until April 3, 1897 (this ending his sixth series), his sight remaining good all the time. When seen a few days ago he was still in the same condition. His field of vision, though not perfect, is still much larger than when first seen. He can see well all the colors and the central scotoma has disappeared. The optic disk has a slightly pinkish hue.

CASE 2. W. D. C., a carpenter by occupation, 46 years of age, came to me for consultation on November 21, 1896, stating that his sight was gradually diminishing since the last three years, and to such a point that he finds it very difficult to continue his daily occupations. At the present time he is a man of regular habits, but about ten years ago and for about three years he drank considerably.

There is no specific history or the occurrence of any condition that could have produced the trouble. His vision in each eye is 10-cc. Both eyes became affected at the same time and the sight gradually diminished until six months ago, when it reached the condition in which it is at the present time. The sight could not be improved with glasses, as he had an astigmatism, against the rule, in each eye. With the ophthalmoscope the optic disks were found to be white, indicating an atrophy. His field of vision was greatly narrowed. His sense of color was normal, although the field, like that of vision, was narrowed concentrically.

I began the intramuscular injections on the 23d of November, two days after the first examination, giving them in series of forty. His sight began to improve on the 21st of December, at the twenty-fourth injection, when his vision in the right eye was 10-cc. From that time on it increased steadily, until the 8th of February 1897, when with his proper correction his vision was R. E. 10-xx. (some), L. E. 10-Lxx. (some).

He was kept under this treatment throughout the year, and at the end of the sixth series, on December 24, his vision (with correction) was R. E. 10-xv and L. E. 10-L.

At the end of the first series he was able to go back to his former occupation, and at the present time, September, 1898, he sees well and is able without much trouble to read the news-

paper, although his vision has not improved very materially for nine months. The field of vision has increased considerably, and also that of colors.

CASE 3. J. M., 21 years of age, a late inmate of the Institute for the Blind at Baton Rouge, came to see me on August 3, 1896. He had a malignant form of malarial fever from June 1 to the 15th, 1889, and his sight began to fail with the fever, and kept on getting worse until the month of August, since which time his vision has been about the same. He was confined to his bed for six weeks during his illness.

He had a chancre in 1893 and so far has been exempt of any other specific manifestations. His general health has otherwise been very good.

His vision was R. E., fingers at one foot, L. E. 5-cc. There was a complete cecity for colors. His field of vision was greatly narrowed and concentrically so. The ophthalmoscopic examination revealed a white optic atrophy, with some spots of atrophic choroiditis on the temporal side near the papilla in the left eye.

He was put on the intramuscular injections the next day, and his sight began to improve at the end of the first series, when in the left eye his vision was 9-cc. He saw objects much more clearly, and was able to go about without much trouble.

At the end of the second series the sight of the right eye improved to fingers at five feet, the left eye remaining stationary.

He is now in his thirteenth series, and unfortunately his vision remains about the same, though he declares that in his estimation he has now over double the sight he had before undertaking the treatment.

On the other hand I want to make mention of a case which has been under my observation and treatment since October 7, 1896, without any perceptible change in the vision, except that the disease seems to have been arrested in its course. It is in a man, H. C. L., 35 years of age, whose previous history is very good outside of a severe attack of malarial fever eight years ago. His mother died when she was 56 years (six years ago), and her sight was very bad. His father died when he was 48 (twenty-five years ago); he could see well, but used glasses to read. His grandparents could see very well. He has two

brothers who have very bad sight. One, two years older than himself, has not seen well for fourteen years; the other one, 30 years old, says that his sight is failing for two and a half years. He has another brother (44 years old) who has been blind for thirteen years. He had a fourth brother who died when he was 29 years old, and who was also blind.

His sight first began to fail in 1893, when he noticed a mist before the left eye. One and a half months later the right eye became affected in exactly the same way. He suffered from headaches very often at that time. His sight diminished gradually until he was put on the mercurial treatment; and, while he did not improve, yet his sight did not continue to diminish as it had done steadily since the onset of the trouble. The direct vision was lost, but he could count fingers at two feet on the sides. His field of vision is greatly narrowed; his sense of color is entirely gone. His pupils react well to light and accommodation.

I do not claim that by this method the intramuscular injections have any other specific virtues besides the mercurial effect. I only bring it forward as an ideal method of administering the drug without the inconveniences of its unpleasant effect, and one which seems to be particularly efficient in atrophy of the optic nerve. With Professor Panas I can say that this preparation of mercury is very generally well tolerated, very little painful if at all, and nearly exempt from accidents.

In the cases above I have been particularly careful to question the patients as to the element of pain, and never have they experienced it to any great extent, if at all, and it was never of such a nature as to make them apprehend their treatment with any fear. I felt sure that my patients were undergoing a regular course of treatment, I knew that the drug was being absorbed in therapeutic doses, the digestive organs were not disturbed in their functions, there was no danger of the fears and inconveniences which occur when administered by other routes. The results have always shown that in its action it was always a sure method, rapid in its effects. It has none of the inconveniences and dangers of massive injections, such as stomatitis, painful phenomena, inevitable nodosities, abscesses, pulmonary infarcti, acute mercurial poisoning, mercurial dysentery, etc.

Clinical Reports.

TWO CASES OF BILATERAL ORCHIDECTOMY FOR HYPERTROPHIED PROSTATE AND CYSTITIS.*

BY FELIX A. LARUE, M. D., CLINICAL INSTRUCTOR ON SURGERY IN THE NEW ORLEANS POLYCLINIC, NEW ORLEANS.

CASE NO. 1.—C. L., aged 74, veteran of the Mexican and Civil wars, was admitted into ward 9 of the Charity Hospital June 12, 1896, service of Dr. Parham and myself, Dr. Hagen being then the R. S. No hereditary history; patient's general health has always been very good, had an attack of gonorrhœa formerly, but no other sickness. Patient stated that he had been sick about a month with pain in the bladder and a burning sensation in the urethral canal, especially at meatus, with continual dribbling of urine. Loss of sleep and appetite weakened him considerably. Being poor he applied to the hospital for relief. On admission we found our old patient suffering from a violent cystitis, with distended bladder. Examination of the prostate revealed a well marked hypertrophy of both lobes. After futile applications of hot fomentations, we had to resort to catheterization with a metallic catheter, as it was utterly impossible to introduce a Nélaton. The presence of nearly two pints of residual urine was thus revealed. This instrumentation was very painful and brought about at each seance quite a urethrorrhagia. Even irrigation of the bladder twice daily with hot boric acid solution was almost unbearable. Although his pulse was fair his temperature ranged between 99 and 100½ deg.

June 16, urine examined and found to contain 50 per cent. of moist albumin, much blood and pus; reaction alkaline, sp. gr. 1.010. The pain and burning in the bladder persisting and the retention not being relieved despite the aseptic daily irrigation and other local and general remedies, hygienic and otherwise, we proposed White's operation to our patient, who readily acceded.

On the 1st of July, 1896, after nearly three weeks' trial with above mentioned unsuccessful plan of treatment, we chloroformed

* Read at the Annual Meeting of the Louisiana State Medical Society, May, 1898.

and castrated our patient. Anesthesia was well borne, but some lack in our aseptic precautions caused an abscess to form just above the ligated cord stumps on both sides. Both were incised under cocain, very little pus escaping from either side, but of a most foul fecal odor. These were swabbed with hydrogen peroxide and packed with iodoform gauze. Within a month after the operation my patient began not only to substitute a Nélaton catheter for the metallic one, but also was able to void his urine naturally and without much pain. In two or three months he discarded the catheter entirely and has never used it since. I have seen my patient several times since, and to-day not only does he say that he is cured of his terrible suffering, but facts prove it in so far that his appetite is excellent, his sleep undisturbed, he urinates but eight times in twenty-four hours, three times of which at night, and this without any pain or smarting. He has gained in weight, and his mind, which was never in any way deranged, remains perfectly clear. I examined his prostate the other day and found the left lobe still slightly hard, but smaller; the right one is soft and compressible and neither side is painful. I made him urinate before me and I noticed he passed a good stream, after which I catheterized him most easily and without the slightest pain with a No. 21 Nélaton and withdrew two and one-half ounces of clear odorless residual urine. Patient states that he sometimes comes to the city, and although walking about, remains four hours without urinating, resulting in only a little discomfort, but no pain.

CASE NO. 2.—Was in my private practice. Mr. X., 66 years of age, consulted me on April 13, 1897, for a constant desire to urinate and a continual dribbling, smarting especially at the meatus. He had no pain when jostled about, nor had he ever passed any bloody urine. He urinated between twenty-five and forty times in twenty-four hours, oftener at night. He had noticed gravel in his chamber for past eighteen months, and showed me some specimens. Hereditary history good. Personal history: had never been sick, but suffered an attack of gonorrhœa years ago. The average quantity of urine eliminated in twenty-four hours amounted to 75 ounces. Examination of same revealed a specific gravity of 1.016, quite a percentage of moist albumin and, with microscope, a large quantity of uric acid. The reaction was acid; no odor and no blood. The

urine, after standing a very few minutes in a graduated glass jar, would show a white thick deposit, not cleared up by heating, nor with nitric or acetic acid. The prostate was examined and found to be very sclerotic and hypertrophied. I could not pass anything but a Guyon prostatic-curved sound, and that with difficulty and great pain. Patient urinates drop by drop, the daily residual urine amounting from 10 to 15 ounces. I procured two specially large catheters, one recurrent to irrigate the bladder daily, which I did with borolyptol solution. Suppositories of belladonna and opium were ordered and ten drops of each of the following drugs: Tr. nux vomica, tr. belladonna, fl. ext. ergot, were prescribed three times a day, as also 10 grains bromide potassium. This treatment, with daily sitz baths and demulcent drinks and other remedial agents, was faithfully carried out without avail for over two weeks. Realizing that my patient was not improving in the least, I proposed castration to him, which he accepted, as his suffering was almost unbearable. I called Dr. Matas in consultation, who, after a thorough local examination, agreed with me as to my future proposed plan of treatment.

On May 11, 1897, I castrated my patient under cocain anesthesia, using a 1 per cent. solution. He stood the operation well. Catgut ligatures and sutures were used; no drainage. Although patient's pulse only twice went above 100, his temperature kept slightly elevated for one week.

May 12, allowed him soup, coffee, plenty of milk and water. Catheterized (metal) at 9:30 A. M., 30 ounces. At 10 P. M., metallic catheter entered bladder at once, 34 ounces, urine never was foul smelling.

May 13, 9 A. M., catheterized easily, 30 ounces; bladder irrigated. 15 grains potass. bromide given to quell frequent desire to urinate, but without any effect. 8 P. M., catheterization easy, 21 ounces; patient, to whom we had also administered some cannabis indica, forgot that I had seen him that morning; drug discontinued.

May 14, 9 A. M., catheterization easy, 22 ounces; 8 P. M., catheterization easy, 20½ ounces; queer dreams.

May 15, 8:30 A. M., catheterization easy, 20 ounces. Patient would void his urine by drops day and night between each catheterization, but on the fifteenth he urinated copiously at

intervals all over the bed; 8 P. M., *i. e.*, four days after the operation, for the first time, a Nélaton catheter (No. 12) was introduced easily and 18 ounces of urine were withdrawn. Passed restless night, was up and down continually, straining to void urine, fecal matter being expelled during his efforts. Patient delirious.

May 16, patient refuses nourishment, 8:30 A. M., Nélaton No. 12 easily passed, 18 ounces; injected 4 ounces of borolyptol solution without eliciting any pain. Before the operation not more than an ounce could be injected into the bladder on account of excruciating pain. Patient still out of his head; 6:45 P. M., Nélaton No. 12, 19½ ounces, temperature 100, P. 94, R. 17.

May 17, patient slept fairly well; 9 A. M., Nélaton catheter No. 12, 14 ounces; bladder injected by means of a Guyon glass-barreled graduated syringe, 8 ounces borolyptol solution introduced without eliciting any pain. 8 P. M., Nélaton No. 12, 14 ounces. Patient urinates in bed, refuses medicines (sulfonal capsules) and strains most of the night to void urine; bowel movements so frequent that a large sheet diaper had to be used; he was, however, not so noisy as previous night.

May 18, chewed meat; 9:30 A. M., continual straining even after Nélaton passed, 18 ounces; mind still unbalanced, passed a very restless day and night, continual straining. Administration of cream of bismuth and laudanum, but without any results; 7:30 P. M., Nélaton No. 12, 11 ounces.

May 19, 9 A. M., Nélaton, 13 ounces; length of urethra 9¾ inches; prostatic portion, 3 inches; bowel movements frequent, patient very restless and still refuses food; 5 P. M., 13 ounces. Patient pulls off the dressings and soils the scrotal wounds with feces and urine; dressings changed three times during the night.

May 20, 9 A. M., at times mind is lucid; catheterized, 11 ounces. Patient removed to his home in a cab; rough and painful ride; wanted every minute to step out and urinate.

Night of May 22, although at home and surrounded by his family he became very boisterous and recognized no one. May 23, A. M., better mentally; P. M., very much better, recognizes every one immediately but still slight incoherent speech. May 26, urine flows at 14 inches from the meatus, Nélaton No. 18

being used. May 27, catheterizes himself about eight to ten times daily, bladder irrigated by means of a fountain syringe and a patent cut-off canula.

June 1, uses No. 20 Nélaton himself. June 3, rancid vaselin smeared on catheter caused urethritis; was quickly relieved. June 7, goes down stairs for first time. June 11, urinates naturally 1 ounce. June 17, urinates naturally 6 ounces, at three different sittings. I ordered one-thirtieth grain of strychnia sulphate and 5 grains of salol in capsules three times a day. July 3, patient leaves the city for the summer and on July 14 urinates 16 ounces naturally.

May, 1898, no catheter has been used by him since August 1, 1897. I have seen this patient several times and I can certify, as well as those around him, to his present good condition both physically and mentally. He has picked up in flesh, his appetite has improved, he sleeps well, urinates about eight to ten times in the twenty-four hours (three to four times at night), with very little discomfort. I felt his prostate the other day and found it considerably reduced and soft. After he urinated for me, with a good stream, I passed without any pain and easily a No. 20 Nélaton and withdrew about 4 ounces of residual urine. He at times goes out for three or four hours without urinating and with but little discomfort.

RIZIFORM CYSTS OF THE PALMAR BURSÆ OF THUMB AND LITTLE FINGER.*

BY FELIX A. LARUE, M. D., NEW ORLEANS.

MRS. X first consulted me July 13, 1895, giving the following history: hereditary history very good; general health good. In March, 1893, patient had the grippe, contracted, she thinks, from nursing a daughter who was stricken with this disease, and who, although weighing 210 pounds, dies a month afterward from acute pulmonary phthisis. From this time on my patient has had a cough, expectorating once in a while. On January 14, 1894, she consulted a physician for a peculiar numbness of the auricularis and annularis of the left hand; several small lumps

* Read before the Louisiana Medical Society, May, 1898.

formed in her palm, the thumb becoming red and swollen. She noticed in September, 1894, a large indolent lump on ulnar side of wrist. She had already had for some time past slight attacks of hemoptysis. On July 17, 1895, I examined her lungs and found a suspicious area of consolidation at the right apex; her sputum of a greenish yellow color and nummular, was examined repeatedly for bacilli tuberculosis, but always with negative results. Her hand presented two hour-glass shaped tumors of the two palmar bursæ, of the thumb and little finger respectively. They were slightly painful, palpation revealing the characteristic crepitation of riziform bodies. There was a direct communication of each division of the bursæ under the anterior annular carpal ligament, so that pressure above or below the joint would drive these bodies in either direction. On August 18, 1895, the patient complaining of pain from pressure and inability to freely use the fingers, I thought best to carefully incise the largest cyst on ulnar side, which I did with cocain and thorough asepsis. I squeezed out thousands of riziform bodies and packed the wound. The next day there was no pus, but squeezing brought out a quantity of synovia and a few rice-like bodies; iodoform glycerin emulsion injection, gauze pack, compression.

After this, although patient had a slight elevation of temperature, the wound, which secreted no more bodies and but little gelatinous fluid, healed up nicely. November 6, 1895, the tumor was found considerably reduced in size and the movements of the hand were much more free and easy. November 23, 1895, I ordered an elastic mitten to be worn over affected wrist. February 10, 1896, riziform cyst reproduced as before; sign of breaking down at right apex, but examination of sputum was again negative. I advised a change of air; the patient then left and improved.

November 5, 1896, the same cyst becoming very painful I again determined to incise and liberate tension by the escape of the reproduced riziform bodies. I endeavored a cure by cauterizing with strong injections of carbolic acid. She would come to my office every two or three days, presenting at times a slight elevation of temperature. November 27, 1896, I discharged her again, practically cured.

On January 5, 1897, for some unaccountable reasons the cyst

on ulnar side became very red and swollen, necessitating incision to liberate accumulation of pus. In spite of antiseptic precautions the hand and forearm became terribly swollen, high fever set in with signs of general septic infection. An immediate amputation seemed inevitable, an incision in the hand and in the forearm had no effect in checking the inflammatory process. The advanced age, 71 years, the light weight, eighty-eight pounds, and the general condition of my patient made me fear an impending crisis. Dr. Matas was called in consultation, before and during the operation, and we both concluded after making exploratory incisions in the palm that destruction of tissue was so great that an amputation at the middle third of the forearm would be the only alternative. Dr. Delaup chloroforming, I amputated as quickly as possible at the above mentioned level. The stump, which I but partially closed, was packed with iodoform gauze. Notwithstanding a long siege of a two months' recuperation, during which time she not only developed tendo-synovitis of the muscles of the forearm and arm, necessitating incisions of purulent fuseses, but also an attack of septic bronchitis with abundant expectoration, she finally rallied and is now perfectly well, weighing to-day twenty-two pounds more than when she went under treatment.

GUNSHOT WOUND OF FACE. EXTENSIVE SUPPURATIVE
OSTEO-MYELITIS OF CRANIAL BONES. LOSS OF RIGHT
EYE. RECOVERY.

BY E. D. MARTIN, M. D., PROFESSOR MINOR AND CLINICAL SURGERY NEW ORLEANS
POLYCLINIC, ETC., NEW ORLEANS.

ELIZABETH W., colored, aged 19, was admitted to my ward in the Charity Hospital on April 26, 1898, suffering from a gunshot wound of the face. She was in a sitting posture when shot; the ball, a 32-calibre, entered the left temple, ranged backward and downward, injuring in its course the condyle of the inferior maxilla, carrying away a part of the zygomatic arch, fracturing the petrous portion of the temporal bone and lodging near the styloid process. The only perceptible signs of this extensive injury were marked inflammation in the region of the left ear and a slight bloody discharge from the auditory

canal, with a considerable rise in the temperature. Local astringents and cold applications were used.

The patient improved rapidly and on April 29 was discharged apparently well. She was readmitted on May 5, suffering from an abscess in the parotid region, temperature ranging as high as $104\frac{1}{2}$ deg. A small incision was made, under cocain anesthesia, by Dr. Fenner, just in front of the ear, and a small quantity of thick pus escaped. This gave great relief, and, though the temperature dropped, it still continued sufficiently high to warrant further interference. On May 10, under chloroform anesthesia, I made a free incision in front of the ear, and on inserting my finger I discovered for the first time the great amount of damage done by the ball, which was finally located, but was so rugged, from its contact with bone, that it was not recognized until removed.

A counter opening was made back of the ear, all of the fragments of bone removed, and the wound cleaned and packed. Following this operation, the patient developed a severe purulent conjunctivitis, first of the left and later of the right eye, causing a marked protrusion of both orbits. At the suggestion of Dr. E. W. Jones, to whom I am indebted for his interest in the case, leeches were applied and boric acid solution used as a wash; cold applications were also kept over the inflamed parts.

The inflammation subsided, leaving a condition of total blindness in the right eye and impaired vision in the left.

The temperature continued to range from 102 to 103 deg. About June 10, an abscess was discovered in the upper lid of the left eye; this was evacuated, and marked improvement in the sight followed.

On June 15 the patient was again chloroformed, the ear dissected up, and a large quantity of necrosed bone and tissue curetted away; the ear was replaced and held in position with a few interrupted sutures.

Notwithstanding free drainage and the most careful details as to dressing, the temperature persisted; the patient was losing weight rapidly, for which it was impossible to account.

On July 1, while dressing patient, a pointed abscess was discovered over the frontal bone just at the roots of the hair. This was incised and a small quantity of pus escaped; the introduction

of a probe revealed extensive necrosis of the cranial bones. The condition here existing had been concealed by the thick woolly hair of the patient, who was practically free from pain. On the following day she was again anesthetized, and being prepared for operation, an incision was made extending from the frontal to the occipital bone on the left side, the scalp was dissected up, disclosing an extensive necrosis of the left frontal, temporal and parietal bones. This was thoroughly removed, the wound packed and the flap replaced and anchored with interrupted sutures. Although a large area of the dura mater was exposed, no harm resulted. From this date, although the temperature continued, the patient began to improve, and on August 4 was discharged. When last seen, about September 1, all wounds had healed and the patient, to all appearances, was well. She had gained in weight and seemed much pleased with her general condition, remarking even that she could "see out of the right eye if you did not cover up the left."

I repeat this remark only to show the amount of intelligence we usually have to depend upon in this class of patients to help us out in a diagnosis. Notwithstanding the long siege of suffering this woman went through, I do not recollect hearing her complain of pain except when the wounds were being dressed. So critical was her condition for a long time, that I refused to allow the man who had fired the shot to be released on bond, though I am told it was accidental. Although the injury done by the ball in its course was extensive, I believe that the source of infection was through the auditory canal in the first place which should probably have been guarded more carefully. Should a similar case come under my observation, I would give special attention to this point, keeping it aseptic and well packed for some time after all symptoms had subsided. To Mr. Nelkin, resident student, who was in charge of this service, much credit is due for untiring efforts and care of the patient.

A CASE OF BOTTINI'S OPERATION FOR HYPERTROPHY OF PROSTATE.*

BY CHARLES CHASSAIGNAC, M. D., PROFESSOR OF GENITO-URINARY DISEASES, NEW ORLEANS POLYCLINIC, ETC., NEW ORLEANS.

A great deal has been said of late about the surgical treatment for hypertrophy of the prostate, and much discussion has been indulged in as to the rationale and the advantages of the respective operations. Most readers are doubtless familiar with these phases of the question, hence, especially as clinical articles are those desired, I shall simply give here a brief account of my third operation for hypertrophied prostate by Bottini's method.

Over a year ago I had the pleasure of hearing Bottini read a complete account of his operation, and of seeing him demonstrate the instrument at the International Medical Congress at Moscow. By the way, he is a big enough man to have referred in a frank way to Freudenberg's modification of his apparatus and to have acknowledged in a straightforward manner that the same was a valuable improvement. This brought down the house.

Soon after having witnessed the demonstration, I procured the modified apparatus, and used it on the first available case which presented itself. It may be wise to insist, in passing, that the operation is not suited to all cases and conditions, although my opinion is that it has a wide sphere of usefulness.

I have operated on a number of cases with more or less result, fortunately without fatality up to the present. After I have accumulated a respectable number it is my intention to publish a *résumé* of them. I have selected case number three for several reasons, which will appear in the account, not the least of which is that a sufficient length of time has elapsed to show that the result has some permanency.

Early in May, 1898, Mr. G. presented himself for the purpose of getting relief for a complete retention of urine. He said he had a large prostate. He had already applied to two other surgeons for relief, was leading a catheter life since several months, and had been told that was the best he could do. Notwithstanding great care on his part, he had some cystitis and had to catheterize himself so often, especially at night, that life

* Reproduced from the Texas Clinic, October, 1898.

was getting unbearable; besides, catheterization was steadily becoming more difficult. An examination by rectum, and with the sound, confirmed the diagnosis of hypertrophy of the prostate, the left lobe being apparently the larger. I irrigated his bladder, advised remedies for his cystitis and stated what operations could be attempted. As he was a very old man—over 79—though otherwise hale and hearty, some atheroma of vessels was noticeable; considering, also, that a properly curved instrument could pretty easily be introduced into the bladder, I laid more stress on the Bottini operations by means of the galvano-caustic incisor and advised him to let me try it.

Very few days later he returned, much relieved, as far as the cystitis was concerned, but saying he wanted me “to use the electricity.” He wanted it done at once, being impetuous notwithstanding his age. I sent him to the New Orleans Sanitarium, where I could obtain the necessary current, and prepared him by beginning to get his bladder in as good a condition as possible.

The next day I operated, assisted by Prof. E. D. Martin, at about 4:30 P. M. After thoroughly emptying his bladder, which had been well washed, I first injected about three ounces of solution of antipyrin in such manner as to have it come well in contact with the prostatic urethra; this being withdrawn, I similarly injected about three drachms of a 2 per cent. solution of cocain, letting it out also, after a reasonable interval. The working of the instrument, including the cooling part of it, having been previously tested, it was introduced, the current was turned on and a furrow was slowly burned through the anterior surface of the middle lobe to the extent of about three centimeters, as indicated by the scale. Then the same process was resorted to on the left or larger lobe. Finally the instrument was turned so as to bear on the posterior surface and a furrow about three and a half centimeters was cauterized through. The operation proper lasted only a few minutes; I forgot to time the start. The odor of burnt flesh was perceptible. Pain was appreciable only during the last cauterization. Bleeding was slight, only about as much as after one passes a large instrument in a rather tender urethra.

After the instrument was taken out, I pumped about four ounces of boric solution in the bladder, allowed the old gentle

man to stand and let him try to urinate. To his joy, and our satisfaction, he passed out in jets about half the solution. With some difficulty he was prevailed upon to lie in bed, as he wanted to go home. About 1 A. M., I was summoned to the Sanitarium, as the patient had not succeeded in passing his urine, and the house physician had been unable to introduce an ordinary catheter. Evidently, some swelling had occurred. The bladder was beginning to get distended. Without much difficulty I introduced a medium-sized silk Mercier catheter, emptying the bladder thoroughly, the patient then going to sleep. The next two days an ordinary Nélaton catheter was easily introduced by the patient whenever the occasion demanded, and he insisted upon going to his home in the city, although I protested.

The following day I was hurriedly summoned to him by telephone, the message being that he was dying. My anxiety and distress may be imagined. Before many minutes I was at his bedside to find that he had had a chill, followed by high fever, which made him delirious and frightened his family. The fever soon subsided, and I was gratified to learn that he no longer needed the catheter, being able to urinate satisfactorily, though a little frequently, and with some burning at the beginning of the act.

There was no return of fever, the frequency of urination gradually diminished, and the burning soon entirely passed away. I had ordered some salol and salicylate of cinchonidia.

Since two days after the operation, about four months ago, he has never needed the catheter. His general condition is good, and his only complaint is from some rheumatic pains to which he has been subject for some time. He will be eighty in a month or so.

The chief points of interest, besides the great age of the patient and the success of the operation, are, the retention due to swelling lasting two days, after having had, immediately after cauterization, a return of the bladder action; the alarming chill and fever, no doubt due to slight septic absorption; the apparent permanency of results.

Translation.

ACNE ROSACEA AND ITS TREATMENT.

BY DR. F. BLOEBAUM, COLOGNE, GERMANY.

[From the *Deutsche Medizinal Zeitung*, translated for the JOURNAL by Paul von Seydewitz, M. D., New Orleans.]

The ancient Greeks and Romans, though not having a special term for acne rosacea, knew the disease pretty well, though they did not consider it as a disease proper, because it neither itches nor is it painful. The poets of that remote epoch make allusion to red noses, and some of them even speak quite correctly of the causes of the disease, for the people at large of that time knew, already, that not only Bacchus, but Venus, too, had chosen the nose as the favorite seat whereon to establish a deposit, in token of their power. And then, as nowadays, the copper-nose became a fit subject for satiric remarks.

In Germany the popular denominations are: "Schnapps-nose," "wine-nose," "powder-nose," etc. Wilhelm von Caliceto called the copper-nose "buzicagua," a "pack horse for wine hose."

The historic data of the physicians of the last century show that acne rosacea was a species of acne, and that it is essentially an inflammation of the sebaceous glands.

But it was Hebra who, in 1844, first showed that acne rosacea did not consist in an exudative process, but in a vascular, and cellular tissue neoplasm which, however, was frequently combined with acne disseminata. He characterized the disease thus: "We call acne rosacea a chronic disease which extends only on the non-hairy part of the face, especially the nose, cheeks, glabella and chin, and sometimes to the lateral regions of the neck. The disease is identified by the formation of macules of a bright red to a dark red color, paling under pressure of the finger, and also by the formation of red nodules, softly elastic, and even of larger protuberances and excrescences."

Classification in stages or degrees, as formerly, in Hebra's opinion is not desirable, because each case of acne rosacea does not always show the same series of phenomena; but, when it

occurs, shows itself sometimes in this and sometimes in quite another form, and, therefore, one should rather look at the form of the disease exhibited.

The first form, according to the author, consists in a generally uniform diffuse reddening of the tip of the nose and its immediate neighborhood. The abnormal vascular ramifications, in this first form, can not be distinguished by the naked eye. In sudden changes of temperature, during winter time, or after copious meals, when getting warm, etc., this redness darkens and produces a feeling of heat.

In women we find the reddening of the tip of the nose often in connection with menstrual perturbation and diseases of the uterus. Chronic dyspepsia seems to produce in both sexes a disposition for acne rosacea. Often this erythema is the consequence of a chronic inflammatory process of the interior of the nose, caused by wearing tight spectacles and especially the so-called "*pince-nez*." With individuals indulging in intoxicating drinks, the nose expands in length and width; the color of the parts of the skin situated between the vessels, changes and assumes a more dark grayish-blue coloration, and the form of the nose resembles that of a pear. The external lumina of the sebaceous glands expand with or without small sebum plugs, here and there inflamed, but there exist neither pustules nor protuberances.

All these forms may pass for the first degree of rosacea, because of the fact that we have to deal here merely with vascular injection and serous infiltration. In this form the process may last many months—nay, even years, and afterward either vanish completely or develop to the more advanced types.

In the second stage there appear gradually on the erythematous spots, nodules from the size of a lentil to that of a pea. They are somewhat resilient, and a bright red color, but by no means painful. Either they are isolated or occur in groups, and show on their surface a sort of design of wandering vessels. The formations do not yet alter the contour of the nose, but only increase the total size.

The third and highest degree of acne rosacea is distinguished by roundish, irregular tumors, at the side of each other, or above each other, and sometimes overlapping. These tumors are of a softly elastic consistency, with general surfaces which are

abundantly transversed by fine vessels, at times as thick as a quill. This is the so-called "pound-nose," which may attain the size of a man's fist. In some cases the nose may so prolong its tips as to overlap the lips, resembling the fleshy appendix over the beak of the turkey-cock.

A not infrequent involution of each and every one of these stages of red nose has been observed, even the protuberances of the third stage, due to excessive resorption, or by auto-cbliteration of the blood vessels, caused by an inadequate nutrition, leading to a complete shrinkage, so that they ultimately drop from the nose.

It has been asserted by reliable investigation that all anatomic changes of acne rosacea consist in an extensive vascularization, in neoplastic connective tissues, and in hypertrophy of the follicles.

In male cases the copper nose occurs more frequently at the time of involution—*i. e.* after the fortieth year of age, while females are attacked by this evil as well at the time of puberty as at the climacteric. From this it follows that, in general, the same etiologic elements do not prevail in both sexes.

This fact gains importance by the observation that according to the sex of the patient, different conditions arise constantly. Women nearly always exhibit those forms of the red nose which we have described above as belonging to the first degree, while the second and third stages are to be found more often in men. In youthful females the causes are chlorosis, dysmenorrhea, sterility; in older ones the physiologic process of sexual involution. Pregnancy also may sometimes be found in connection with the development of rosacea. Exceptionally acne occurs in sexually healthy women.

The best known etiologic factor in acne rosacea is the abuse and the habitual use of alcoholics. The use of different spirits causes different conditions. Wine drinkers show generally bright red lesions, while whiskey and brandy drinkers produce chiefly dark-blue and smooth noses. Beer drinkers show frequently the more cyanotic appearance with hypertrophy, in which all the elements, the glands, hair follicles, and subcutaneous cell tissue, participate.

Now, although diverse reflex causes provoke, constant irritation of the skin may produce the disease quite as well.

This is frequently observed in persons who are constantly exposed to wind and weather, as drivers, masons, market women, etc. But the author thinks that in these persons, too, the alcoholic habit is a factor, for frugal living country people show this disease less frequently than inhabitants of cities indulging in the enjoyment of a well furnished table.

We should not lose sight of the fact already mentioned that a chronic inflammatory state of the inner nose, hindering nasal breathing, and especially hypertrophic rhinitis, are also notable etiologic elements.

Notwithstanding all these more or less well known etiologic factors of *acne rosacea*, there are many cases where absolutely no plausible cause can be assigned. Frequently enough *acne rosacea* occurs in male and female persons of all ages (except childhood) where no excessive alcohol indulgence, nor anomalies in the sexual functions, nor diseases of the digestive organs can be found.

The diagnosis of *acne rosacea*, as a rule, offers no difficulties. It is easily distinguished from *acne vulgaris*. The great degree of vascularity; the soft nature and easy compressibility of the *acne-nodules*, as well as the absence of cicatrized or ulcerous involution differentiate them from syphilitic products of like appearance. Equally easy is the differential diagnosis between *rhinophyma*, from *rhinoscleroma*, or from *carcinoma*.

The treatment of the evil is internal and external. The various etiologic elements indicate that the internal treatment must be appropriate to the indication.

In females, remedies would recommend themselves which are calculated to do away with the anomalies of the female sexual sphere, or which are indicated in chlorosis, dyspepsia, etc. Gynecologic local intervention, medicines containing iron, water cures, milk treatment, river and sea baths, etc., drastic cathartics, especially aloes, in habitual obstipation, etc., may give good results if continued long enough.

Internal remedies will not produce a lasting cure. After leaving them off, the nose, which might, perhaps, have paled whilst using them, will anew become red. Therefore in all cases local treatment is necessary; but hitherto the results obtained can by no means be said to be brilliant.

The whole cure, or treatment, demands great energy and

persistence, and even then many recurrences after complete recovery will happen.

As a prominent remedy Hebra designated sulphur, which had already been recommended by Alibert. Tincture of iodine, and glycerite of iodine are used also for penciling, likewise mercurial plaster.

All these remedies, however, lead to recurrences and are painful, and the patients either declare that they can not stand the treatment or leave before a cure is completed and soon again exhibit their red noses as before.

Science sought therefore other modes of treatment especially with respect to the intense diffuse rednesses, telangiectasies and larger nodules. With the latter, methodic scarifications in repeated sittings were tried and put in use. Either multiple parallel shallow cuts by means of fine scalpels were made, or acupunctures with the cataract needle; also the fine vessels were curetted with the sharp spoon. The profuse bleeding was stopped by compression with wadding. With regard to the special instruments coming into play, we may mention that of Veiel, consisting in lancets, changeable as to their penetration; of that of Squire, consisting in a multiple scarificator, or Hebra's needle for acupuncture. But all these modes had to be continued and repeated for weeks and months.

In the third degree of the disease, the disfiguring protuberances were removed either by excision or by ablation with the knife, and the thickened skin was also removed to such an extent as it seemed advisable in order to produce a tolerably normal nose.

The author published a paper (1897, Nos. 96-98, *Deutsche Medizinal Zeitung*) on an aseptic galvano-caustic incandescent needle of his own construction, and spoke of its further use in special surgery. He cited the case of an eight-year-old girl who had been freed by ignipuncture with his needle from a shallow nevus vascularis on the left side of the nose. Doctor Bloebaum expressed the opinion that this needle might be successfully employed in all those skin diseases in which hitherto multiple scarification, or acupuncture had been used in order to destroy enlarged veins and their obliteration as in acne rosacea, telangiectasies, lupus erythematosus, etc.

Shortly after, a case of acne rosacea came under his care. The

patient was a girl, 23 years old. She had no ailments of any kind. Although the daughter of a hotel proprietor, a vine grower and wine producer, she was very cautious in drinking wine, the more so as a single glass of wine made her nose redder; the same thing occurred when she got excited or had emotions. Her nose breathing was somewhat difficult, especially at night-time and according to her position in bed; there was a hindrance in the respiration, whether she was on the right or the left side. Then she had to sleep with open mouth, and consequently snored loudly. She had suffered for some years and the nose had become considerably thicker.

Examination showed, on inspection of the external nose, a moderate redness of the tip of the nose and more or less strong vascular ramifications, which in their course could be distinctly perceived. There existed also enlarged sebaceous glands with sebum plugs, and likewise single isolated soft, small nodules. The nose, on the whole, seemed thicker than normal. This latter fact gave no small concern to the patient, who was in fear it would increase in thickness. By anterior rhinoscopy it was found that there existed rhinitis hypertrophicans, producing chronic catarrh. Posterior rhinoscopy, however, did not reveal any particular swelling of the deeply situated parts of the lower turbinated bone. The tonsils were normal, likewise the distance of the uvula from the posterior fauces. The nose speculum examination, as well as the digital exploration of the fauces narinæ, did not reveal any adenoid vegetations. Therefore there was present an acne rosacea in its transition from the first to the second stage, the origin of which, on account of the absence of all plausible causes, was considered as concomitant and coeval with the inner-nose affection. The author, therefore, first attacked the rhinitis hypertrophicans by submucous cauterization by means of his galvano-caustic incandescent needle. The area was made anesthetic after the method of Schleich.

After the place of the first puncture with the needle of the injection syringe had been made anesthetic, by dipping the needle in a 5 per cent. carbolic acid solution, the whole turbinated bone was completely edematized by means of Schleich's solution No. 2, and made anesthetic. The galvano-caustic needle was made incandescent and plunging it in the deep parts submucously, along the axis of the bone, it was withdrawn while yet incan-

descent. In this manner he produced three cauterized canals. Antiseptic dressing.

On the third day the hypertrophy of the other narine was treated in the same way. Both operations progressed well and without accident.

On the fifth day the author attacked the acne-phenomena themselves.

Infiltration anesthesia was again established. Patient was ordered to drink a couple of glasses of wine so that the efflorescences appeared stronger. In the afternoon the cauterization was made as follows: the point of the feebly red-glowing needle was passed over the vessels, only here and there plunging in a little deeper. After the operation ice compresses were made, during some hours, and rest in bed ordered. In the evening sedative dressing was made. The reaction was extremely slight. After one day Dr. B. proceeded with the treatment of the macules and small nodules. After Schleich anesthesia, numerous punctures were made in rapid succession, into the dilated capillary vessels of the skin by means of the incandescent needle about two *mm.* deep, but twice as deep in the small nodules. These punctures were made close to each other and the needle always withdrawn while yet hot, but a confluence of the little burn wounds was carefully avoided.

The after treatment was the same as above mentioned. But here the reaction was greater, the swelling more apparent and headache was complained of. Still, night rest was not disturbed and two days afterward patient was allowed to leave the bed.

After five days Dr. B. discharged patient.

When patient presented herself, three months later, she was entirely cured. The small scars were hardly visible and the former volumeric extension had likewise vanished.

The second case related was a gentleman 50 years of age, who had been treated for two years with peeling pastes. The disease had made rapid progress and was already in its second stage.

The patient was not a confirmed drinker, but drank regularly beer and wine, which Dr. B. allowed him to continue. Dr. B. made punctures three times every week with his incandescent needle.

Here, also, complete retrogression took place within two months.

In a third case the author was able to bloodlessly remove the bell tongue excrescences partly with the incandescent needle and partly with the knife-like actual cautery, and caused retrogression of the remaining phenomena by igni-punctures with his incandescent needle. With respect to the last stage, the pound nose, nothing seems to avail but wedge-like excisions of pieces taken from the thickened cutis with the knife. This seems to be the only method to be resorted to, in order to obtain a tolerably presentable nose.

According to Dr. Bloebaum's experience, the operation with the galvano-caustic incandescent needle in the treatment of acne rosacea ought to be regarded as the mildest, safest and most successful method, because it is the fundamental principle to remove, by obliteration, rapidly and lastingly, the vascular dilatation on which all other later symptoms depend. Besides, the operation can be made painless by infiltration anesthesia, and does not cause bleeding, as is the case when scarification with the cataract needle and the knife is resorted to. Finally, the formation of scars is hardly visible.

Communication.

Editors New Orleans Medical and Surgical Journal—Being a subscriber to your valuable journal and a Tulane medical student, I take the liberty of offering you the following, *i. e.*:

One of the principal dangers in the operation for inguinal hernia is the accidental cutting of the epigastric artery, and also the obturator artery, whose exact location is often unknown. To protect these arteries from injury during herniotomy I would suggest that after the integument and fascia have been incised and the sac exposed, instead of using a probe pointed bistoury to sever the constricting bands, I would forcibly disrupt or tear the fascia or ring by introducing a uterine dilator of the glove-stretcher pattern, one blade to be introduced into each side of

the abdominal ring with the sac lying free in the middle of the blades. By opening the blades with sufficient force they will cause the fascia to give way, or tear, producing an opening which will permit the reduction of the bowel. While the points of the dilator are severing the fascia they at the same time gently push aside the epigastric and obturator arteries, which offer no resistance, as they are surrounded by loose areolar tissue.

Respectfully, etc.,

R. FAIREX.

NEW ORLEANS, October 12, 1898.

[The suggestion made would scarcely be necessary if all who operated had experience with the class of cases in question. It would be a useful precautionary measure, however, for those who, without that experience, may have to meet an emergency.—EDS.]

Society Proceedings.

TWENTY-FOURTH ANNUAL MEETING OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION,

held at Nashville, Tenn., October 11, 12, 13 and 14, 1898.

The association met in the hall of the House of Representatives at the State Capitol, and was called to order by the Chairman of the Committee of Arrangements, Dr. Duncan Eve.

After prayer and addresses of welcome, and after the reading of the reports of the secretary and treasurer, the president's address was delivered by Dr. John Young Brown, of St. Louis, Mo. He selected for his subject "The Mississippi Valley Association," dealing with its history and saying that it was organized twenty-four years ago. The rapid growth of the association is due to the loyalty of its members and to the fact that from its inception it has been a distinctively working body. Suggestions were offered for its improvement. The president recommended that the annual dues be raised from \$3 to \$5, inasmuch as the association contemplate the publication of an annual volume of transactions.

In the several sessions which were held a number of inter-

esting papers were read; abstracts of the more notable we shall notice.

The first paper was read by Dr. Charles T. McClintock, of Detroit, Mich., entitled IMMUNITY. The future of work in this line is full of promise. For the infectious diseases, at least, immunity and cure are one and the same. A diphtheria patient will be cured only when his tissues are immunized against the attack of the diphtheria poison. There are several kinds and various degrees of immunity. We have a natural and an artificial or acquired immunity; apparently these are entirely different in kind, dependent on different functions of the body, effected by different substances. There is racial immunity. Again, we have an immunity correlated with age. Variations in susceptibility are noted in different varieties of the same species and even in different families. Again, there is an individual immunity. Still again, one part of the body, even one portion of the same tissue, may be immune, while the rest is very susceptible. These facts are not to be explained by general resistance, good health, etc. The most vigorous man may acquire small-pox or influenza. The healthiest cow is likely to take pleuro-pneumonia.

To what extent an acquired immunity can be inherited is both an interesting and important question. This sort of immunity is usually lost, at least so far as our tests will show before the animal reaches the adult stage. This inherited immunity is not the same as the immunity of the suckling. This is due to the fact that the immunizing bodies pass into the milk. The child receives from its mother not only food, but disease-resisting power.

We have active and passive forms of acquired immunity. The horse producing antitoxin is actively immune. His tissues are producing antitoxin. The child receiving a dose of antitoxin is passively immune. It has borrowed the strength of the horse.

There is an immunity to poisons. The wolf thrives on putrid flesh. Some animals are immune to snake poison. The insusceptibility of the morphin user may be something more than mere tolerance. The drug may be in part destroyed and this anti-power may have to do with the craving for the drug. There is no antitoxin, but, in short, an immunizing body.

CONGENITAL SCOLIOSIS.—Dr. S. C. Baldwin, of Salt Lake City,

Utah, read a paper on this subject. Scoliosis is, first, the most common of all deformities. Second, it is most often found in children under ten, rarely beginning after eighteen. Third, it is found more often in girls in the ratio of five to one. Fourth, the etiology is in a large number of cases very uncertain. Congenital scoliosis is very rare. Tubley, of London, in the latest English work on deformities, says that he has been able only to verify four cases.

The case reported was first diagnosed as scoliosis when the child was twenty-one months old, but the father had noticed the "lump" ever since the child was first washed. The interesting features of the case are that the curvature is in the lower cervical and upper dorsal regions. There is some pressure on the cord, as shown by the more or less deficient development of the right side. The convexity of the curve in this case is to the left. There is partial paralysis of the forefinger of the right hand. There is sweating and flushing of the left side with none on the right.

The cause of the scoliosis in this case is thought to be the lack of amniotic fluid while in utero, probably allowing the muscular walls of the uterus to press on the fetus and hold it in a faulty position, and in this way cause a wedge-shaped development of the bodies of the vertebræ. This theory has been advanced by Weissenberg, Hirsh, and Schauz in the last year. In this case the mother was very small, and passed at the time of confinement so little water that she did not know there was any, and felt no motion comparatively during pregnancy.

Dr. William L. Baum, of Chicago, read a paper on THE THERAPEUTIC VALUE OF MARMOREK'S SERUM. Twenty-two cases have come under his observation in which the serum was used. Of these, nineteen were cases of erysipelas, one of erysipelas plus tubercular nuchal glands, one of facial erysipelas during child-bed without septicemia, and one of erysipelas with puerperal septicemia and double labial abscess. The last was the only fatal case. The serum used was supplied by Parke, Davis & Co.

The deductions he draws from an analysis of the literature and his own experience are:

1. In pure streptococcic infections the serum undoubtedly exercises a favorable influence on the course of the disease.

2. In the mixed infections the influence of the serum is noticeably demonstrable, but it merits further trial as an adjunct to other treatment.

3. Considering the grave character of the complications of a non-streptococcic nature reported, ordinary rules of therapeutics demand that in such cases, as with the diphtheria antitoxin, all indicated therapeutic procedures must be employed as well as the serum.

4. In view of the fact that erysipelas streptococci and phagocytes have been found to exist side by side in the lymph channels, it is fair to assume that the influence of the serum is directly exerted bacteriologically on the streptococci and not entirely through a stimulation of phagocytic action.

5. The initial dose in all cases should be 20 *c. c.*, to be followed by 10 or 15 *c. c.*, according to the indications, every twenty-four hours.

Dr. Charles L. Minor said his experience is practically confined to secondary infections in tuberculosis. He has used the serum of Parke, Davis & Co. with considerable satisfaction, and prefers it to Marmorek's.

Dr. Samuel E. Milliken has used anti-streptococcic serum in two cases, both of which terminated fatally. One was a case of abscess of the liver, the other a suppurative appendicitis.

Dr. William J. Jacques, of Chicago, called attention to infections in the pulmonary tract that he has found to be purely streptococcic, and in such cases he has advised injections of anti-streptococcic serum with good results.

MASTOIDITIS, WHEN TO OPERATE AND HOW, by Dr. Andrew Timberman, of Columbus, O. The causes and symptoms of this affection were described. He divides cases of mastoiditis into two classes—the first comprising those complicating acute aural diseases; the second class, those complicating chronic aural affections. This division ignores primary mastoiditis, which is very infrequent.

Conclusions: Operative measures should be instituted:

1. To preserve the function of hearing, as well as to prevent a fatal issue.

2. Earlier in mastoiditis due to scarlet fever, diphtheria and the worst cases of influenza, than when due to colds, measles, typhoid fever, etc.

3. In the acute cases of mild infection, when subsidence does not occur within, at most, eight days (Schwartz). A shorter period is safer in a virulent infection.

4. Recurrent mastoiditis due to any cause.

5. In mastoiditis complicating a chronic suppurative otitis.

6. In acute cases where there is a drooping of the lining membrane of the supero-posterior wall of the external auditory canal, carrying with it the membrane Shrapnelli; in chronic cases when at the same place a crater-like opening leads to the recessus epitympanicus and aditus and antrum, even though in neither case symptoms immediately menacing life be present.

The author favors the typical or original Schwartz method of opening the mastoid antrum. Its success in given conditions justifies its application; its failure in given conditions has resulted in a more perfect procedure styled the Schwartz-Stacke or radical operation.

Dr. Coulter maintained that the general practitioner should not treat cases of mastoiditis in which the symptoms are well defined, and no one who has not had considerable surgical experience should attempt the Schwartz operation.

Dr. Stucky said that in many cases of necrosis of the malleus he has made a free incision along the posterior superior wall of the canal, curetted the diseased bone away, tamponed the canal lightly with iodoform gauze, and patients have done well without undergoing the radical operation.

Dr. Dudley S. Reynolds laid stress on the importance of instituting constitutional medication in the stage of invasion in cases of mastoiditis, saying that an ounce of prevention at this period is most preciously bestowed.

Dr. L. B. Grady, of Nashville, called attention to a point not mentioned in the paper—the differential diagnosis between mastoiditis and mastoid periostitis. If cases are carefully observed there is as much difference between the two conditions as there is between a periostitis of the tibia and an epiphysitis. This differentiation is of paramount importance in the treatment, whether it be medical or surgical.

PERITONSILLITIS OR QUINSY; CAUSE AND TREATMENT, by Dr. J. A. Stuckey, of Lexington, Ky. Of ten authors consulted, seven, after citing hereditary predisposition, exposure, etc., mention rheumatism and gout as the most prolific causes of this malady.

Close observation and careful testing in selected cases convince him that the rheumatic, or more probably the uric acid diathesis, has more to do with the causation of this disease than any other factor.

Coming to the treatment, he believes if the majority of cases of quinsy are seen within forty-eight hours after the first onset of the disease, they can be aborted to such an extent that suppuration will not take place. In cases that progress to suppuration, he strongly advocates early and free puncture, just as soon as there is marked distention, in order to relieve pain and stop the destructive suppurative process. For this purpose he uses a modification of an ear spoon, first described by Spier, and not a knife.

CLINICAL REPORT OF A CASE OF ABSCESS OF THE LIVER, by Dr. Edwin F. Wilson, of Columbus, Ohio. In speaking of the clinical aspects of abscess of the liver, he called attention to the essentials in diagnosis, and dwelt upon the history of the disease. He reported three cases. Of these the diagnosis was confirmed in two by *post-mortem*; in the other by aspiration. In all three the abscesses were chronic when the patient came under his observation. In only one of the cases was there a history of dysentery, although in one case scars of healed ulcers were found in the large intestine. In these cases he finds the enlargement of the liver is upward. Hoover has made a diagnosis of abscess of the liver from a friction sound in the axillary line between the eighth and tenth ribs. The essayist has not heard this sound in any of the cases, but this should be borne in mind when making an examination in this region. Two of the cases reported were mistaken for malaria. This mistake can be avoided by the more general use of blood examinations. The absence of plasmodium would settle this at once.

Dr. George W. Johnson, of Dunning, Ill., read an excellent paper entitled GONANGIECTOMY AND ORCHIDECTOMY FOR HYPERTROPHIED PROSTATE IN THE AGED, in which he reported five cases and made a second report on twenty-eight cases previously recorded. The author referred to the celebrated paper of J. William White, entitled THE PRESENT POSITION OF THE SURGERY OF THE HYPERTROPHIED PROSTATE, read before the American Surgical Association in 1893, and to other contributions in current medical literature. From the cases reported he was led to

undertake treatment by this method a little more than a year ago. He had familiarized himself with the different methods of examining patients, and the surgical and medical methods of treatment, and had done the work as thoroughly as possible to determine further the real efficacy of orchidectomy and gonangiectomy. Of the twenty-eight cases, twenty-six may be said to be perfectly cured. They have not had trouble with their urine, and are in good health. Of the other two, one has had retention once since operation; the other, which was a case of bilateral gonangiectomy, has enuresis at night once in a great while, and goes to the urinal more than the normal number of times during the day. This is the case he had reported as suffering from senile dementia. Mentally, his condition is unchanged. The gastro-enteric trouble, which is almost universally present in these cases, has disappeared in every instance. No deaths have occurred among the twenty-eight cases. It may be stated that the surgical treatment in every case has been a complete success.

Dr. Johnson arrived at the following conclusions:

1. All cases of prostatic hypertrophy should be given at least two weeks of palliative treatment, with rest in bed. This treatment should be regulated according to the conditions. The bowels should be kept free; sitz baths; counter-irritation to the perineum; medicated suppositories for rectal pain; douches of nitrate of silver; bichloride of mercury, ichthyol and diluents for the urine, with milking of the prostate every second or third day, together with regulation of diet. Of the cases so treated by him, one in four required no operative interference.

2. If no relief is had from this line of treatment a thorough and systematic examination should be made for vesical calculi, polypi, as well as structural and malignant disease of the prostate and bladder. Cystitis, acute prostatic abscess should always be borne in mind. The urine should be frequently examined. In cases of cystitis he is of the opinion that the ureters should be catheterized to more accurately determine the condition of the kidneys. This can now be easily done by the Harris instrument. If by digital examination per rectum the prostate is found to be enlarged, its approximate dimensions should be noted and urethral measurements taken. The patient should then be as well prepared for operation as possible. If an operation is not especially urgent, two weeks' time is usually

sufficient. Having decided upon operative interference, the operator alone must decide upon what operation he will do. Personally, he believes that gonangiectomy or orchidectomy offers less risk to life.

3. Chloroform should be used, as it requires less time and is not so irritating to the kidneys. The operation should consume as little time as possible, for these patients will quickly succumb to long anesthetics and operation. As to time, gonangiectomy or orchidectomy can be done quicker and with less shock than any other operation; there is less liability to secondary infection. Much will depend upon the after-treatment. With busy surgeons this point is too often neglected. If herniotomy has not been done and the patient is asthenic, the shorter the time he is kept in bed the better, for such patients soon go to pieces if confined to bed too long.

4. The time for relief after operation is irregular. In his experience the relief has not been as clearly defined as to hours and days, nor as immediate as in most cases reported. In but two cases has the catheter been required after operation. Enuresis was constantly present in his cases for from one to six weeks after operation. The relief from vesical distress is usually the first sign of improvement, and this is always gradual, not spontaneous,

5. More immediate relief is given to cases of orchidectomy, and the prostate grows softer and diminishes more rapidly in such cases than where gonangiectomy is done.

6. The kidneys should be carefully watched and supported after operation. Mental symptoms appeared in three of his cases, two of which were most certainly due to renal disease, for when treated for this condition they almost immediately became lucid and have remained so. Residual urine should be carefully measured from time to time.

7. Long standing and troublesome hernia can be successfully treated in the senile. In case of orchidectomy, no incision was made in the scrotum, and no drainage whatever used. It is his judgment that the less the scrotal tissue is disturbed the better. Bassini's operation was resorted to in all but five cases, in which Fowler's method was used.

8. Cystic degeneration of the testicles was met with in twenty-five cases. These cases usually had chronic hydrocele also, and were always cases with hernia of long duration.

9. When the intestines occupied the scrotum in large mass, they were returned to the abdominal cavity three or four days before the operation. In many instances there were adhesions preventing reduction.

10. Examinations were always made for vesical calculi, but none were found.

11. The somatic condition is greatly improved, and when bilateral orchidectomy was done the patients became obese.

12. A thorough line of palliative treatment of from two to six weeks' duration, with rest in bed, was given each patient. If operation was required, preparation of from one to three weeks was made by special diet, whiskey, and full doses of strychnin, with a thorough cleansing of the bowels before operation.

13. In cases of herniotomy the patient was kept in bed from three to five weeks, unless very asthenic, with the hope of getting better organic union and thereby minimizing liability to recurrence.

14. In a personal examination of the prostates of 360 men over 55 years of age, the large majority being between 65 and 75 years, he found 186, or $75\frac{1}{3}$ per cent., to have very perceptible enlargement of the prostate. In 65, or $18\frac{1}{8}$ per cent., there was urinary disturbance. In 56, or $15\frac{5}{8}$ per cent., the prostate was so large that it could not be outlined by digital examination per rectum. Of these 56, 14, or 25 per cent., had urinary disturbance constantly, such as dysuria, frequent micturition day and night, rectal and vesical tenesmus, retention at times, with residual urine and cystitis. In 210, or $58\frac{1}{3}$ per cent., the prostate was very perceptibly enlarged; 43, or 20 per cent., had urinary disturbance of a milder degree than those above mentioned. The right lobe was markedly more enlarged than the left in 7, or $1\frac{1}{8}$ per cent. Of the 7, 5, or $71\frac{2}{7}$ per cent., had urinary disturbance. The left lobe was also enlarged in 7, or $1\frac{1}{8}$ per cent., but had urinary disturbance. The middle lobe was slightly enlarged in 5, or $1\frac{1}{8}$ per cent. None complained of vesical distress. The prostate was found to be normal in 44, or $12\frac{2}{3}$ per cent. It was atrophied in 30, or $8\frac{1}{3}$ per cent. Of these 30, 2, or $6\frac{2}{3}$ per cent., had slight enuresis.

It will be noted that this percentage is higher than that given by Thompson and White, but this census is taken from a strictly

hospital population. The rather extreme age and the fact that most of the men have had gonorrhoea or syphilis, may account for the high percentage.

The cases he has reported as requiring surgical treatment are not included in this census.

On the third morning, Dr. George Ben Johnson, of Richmond, Va., delivered the address on surgery. His subject was *THE PROGRESS OF RENAL SURGERY*. Renal surgery is altogether a matter of the past three decades, having had its commencement with the successful nephrectomy performed by Simon in 1869. Dr. Johnson dealt with nephrotomy, floating and movable kidney, renal and ureteral calculi, neoplasms of the kidney, tuberculosis of the kidney, which, when not a part of the general miliary tuberculosis, may either have its origin in the kidney or may be an ascending affection from the bladder. Hydronephrosis also received attention. He made no attempt to arrive with anything approaching completeness at the progress or present status of surgery of the kidney. He has endeavored merely to point out some of the advances which have been made in this field of surgery, and to indicate the present view of surgeons upon some of the most important points. Especially did he emphasize the conservatism which has developed along this line, and which now marks the attitude of the surgeon in this as in other branches—a conservatism which realizes that the glory of surgery is not in amputation and in mutilation, but in saving important organs.

Dr. Shelby C. Carson, of Greensboro, Ala., read a paper entitled *A CONSIDERATION OF THE LIMIT TO OPERATIVE GYNECOLOGY*. He emphasized the importance of medical gynecology; he showed that surgery can not advance a legitimate claim to even the larger portion of this great field. What constitutes true surgery is then discussed, the author quoting not only from text-books, but from the latest utterances of eminent surgeons, proving that surgery, of all other branches, is based upon principles, and hedged in by fixed laws, and that when these are disregarded there is no true surgery.

THE THERAPEUTIC VALUE OF LEAVING LARGE QUANTITIES OF NORMAL SALT SOLUTION IN THE ABDOMEN. Dr. J. Wesley Bovee, of Washington, D. C., read this paper, in which he reported six cases to illustrate the usefulness of this procedure.

The marked stimulating effect of the remedy on the kidneys is noticeable in all the cases. Penrose has found that the average amount of urine excreted during the first twenty-four hours after operation in 100 cases was 13.4 ounces; for the second, 14.6 ounces, and for the third, 19.8 ounces. He also found that for the first day the maximum amount of urine was 27 ounces. In many of the cases of the essayist this maximum was much more than double. While the number of cases in which he has used these large quantities of normal salt solution is small, the effect should encourage a further application of the remedy in proper cases. Not one evil result of the solution was observed in any of the cases.

Dr. F. F. Bryan, of Georgetown, Ky., read a paper entitled A PLEA FOR PELVIC CELLULITIS AND PERITONITIS.

He reported twenty cases, and drew the following conclusions:

1. Cellulitis and peritonitis are important manifestations leading to the greatest amount of suffering that woman is heir to.

2. Their recognition and the retention of their nomenclature should keep physicians constantly on the watch for them.

3. Their proper treatment in the early stages will obviate these latter evils to a great extent, as cellulitis and peritonitis are easily curable in the early acute stages.

4. That should opportunity for an early cure not be offered, then the chronic cases should have the medical and minor gynecological treatment mentioned by him, under which many will be cured. Others obtain relief, and a respectable quota will of necessity have to turn to surgery for their cure.

Dr. Alex. C. Wiener, of Chicago, read a paper on THE SURGICAL TREATMENT OF PARALYSIS IN CHILDREN.

He said a clear distinction should be made in diagnosis as well as treatment between cerebral and spinal paralysis. A common symptom in both diseases is paralysis, and yet there is a great difference between the two. In spastic paralysis one group of muscles becomes rigid and overpowers its opponents, rendering them over-stretched and useless, but still their innervation is by no means disturbed. In spinal paralysis there is a true degeneration of the lower neuron and the dependent muscular groups. This being borne in mind, the treatment is to equalize the balance between the spastic and the over-stretched

muscular group by lengthening the rigid muscles. This is done either by tenotomy, resection of tendons, or loosening the attachments of the muscles from the bone, as is done in a spastic condition of the adductor muscles of the pelvis. The after-treatment consists mainly in not allowing the extremity to leave its over-corrected position too soon, and in strengthening the functionally weakened opponents by massage, bath and electricity. Apparatus in these cases are utterly useless and should be entirely discarded. Any other peripheral cause of reflex irritation, as phimosis, occlusion of the prepuce, or of the clitoris, is to be removed. In anterior poliomyelitis we have to deal with a true paralysis of certain muscular groups. This may be overcome by apparatus which supplant the paralyzed muscles, or by operative procedures. Operative measures consist in dividing the belly of an active muscle up to the place of its insertion and sewing the corresponding part of the tendon into the cleft of the tendon which belongs to the paralyzed muscle. The inactive muscle is supplied with the vigor of the innervated muscle, taking care, as Milliken has pointed out, that the sheath of the tendon is preserved. By this artificial change in the arrangement of muscles, the function of one muscle is transmitted to another. There is taking place an alteration of the reflex activity in the nerve centres of the muscles; hence, the importance of the function of the extremity is by no means a mere mechanical act.

Dr. A. M. Cartledge, of Louisville, contributed a paper on POSTERIOR DISPLACEMENTS OF THE UTERUS. He dealt with the subject from a clinical standpoint. He discussed the causes, symptoms, and diagnosis of these displacements.

Treatment should be divided into measures which correct the cause and methods of support by suturing and shortening the round ligaments. Sometimes it is necessary to employ both methods in the same individual in order to make the result durable. In the first category are to be included thorough curettage; repair of cervical lacerations, if present; perineorrhaphy and restoration of the pelvic floor; tonics, laxatives and rest. These methods, if carried out successfully, will ultimately relieve the vast majority of posterior displacements.

As between ventro-fixation, vagino-fixation and Alexander's operation, preference should be given the latter, if no accom-

panying disease is suspected. Where such disease exists, the operation of ventro-fixation should be practised, as it gives opportunity for inspection and correction of the pelvic disease. It is the best operation in all cases of adherent uteri.

SOME PHASES OF INTESTINAL OBSTRUCTION.—Dr. A. H. Cordier, of Kansas City, Mo., read an excellent paper on this subject. He said the causes of this condition are many and varied. Modern methods of diagnosis in skilled hands have led to the saving of many lives, which heretofore would have been lost by delay in resorting to the proper treatment. While the diagnosis of intestinal obstruction can usually be made early, there are some cases in which the pathologic manifestations are so insidious or vague that their detection requires time and much careful clinical analysis. The symptoms of intestinal obstruction were thoroughly outlined. He said the falsehoods uttered by pain and the truths untold by opium have been very expensive to human life in the management of this condition.

Surgical treatment for the relief of intestinal obstruction should be resorted to early. It should be thorough and quick. No protracted delays or chronic surgery should enter into the management of an acute intestinal strangulation, as these cases stand prolonged anesthesia and slow surgery badly.

Dr. Bayard Holmes, of Chicago, read a very interesting paper on THE SURGICAL TREATMENT OF EXOPHTHALMIC GOITRE. The surgical treatment is based on the theory that in this disease the direct morbid factor is an increase in the normal excretion of the thyroid gland. He gave a synopsis of the physiology and pathology and an outline of the embryology of the thyroid, after which he reported in detail an instructive case upon which he had operated, it being a very powerful argument in favor of surgery in dealing with this affection.

Dr. J. S. Nowlin, of Shelbyville, Tenn., discussed some forms of gangrene and their treatment.

Dr. William K. Jacques, of Chicago, read on THE EARLY DIAGNOSIS OF DIPHTHERIA.

He said that outside of the laryngeal complications, the mortality from diphtheria is due to the toxin produced by the Klebs-Loeffler bacilli. No physician can successfully treat diphtheria unless he understands the nature of this toxin, how it is produced, and how the cells may be fortified against its destructive action. To appreciate the danger of his patient, a physician

must understand the rapidity with which these bacilli multiply under favorable conditions. The clinical symptoms manifesting their residence may give no indication as to the rapidity with which the fatal amount of toxin is being produced. Understanding that toxin is a product of these germs, their multiplication means an increased amount of toxin which soon reaches the fatal point unless checked by the use of antitoxin. This demonstrates the importance of a physician knowing at the earliest possible moment what germs are present in an angina. The essayist described a culture outfit for the use of physicians.

Dr. H. W. Whitaker, of Columbus, Ohio, read a paper on *PICHI*.

In Chili, South America, *pichi* is found growing as a shrub in abundance. No doubt the active principle of the drug resides in the balsamic resin, but chemical examinations have so far been unsatisfactory in determining its chemical composition. The annoying symptoms of chronic cystitis with enlarged prostate yield to the action of *pichi*, as was illustrated by the report of a case. This remedy is indicated in all of the various forms of diseases of the liver. In gall stones it has proven a valuable agent in assisting the secretion of bile, and theoretically aiding the discharge of the stones. Uric acid formations rapidly disappear from the urine under the corrective influence of this remedy and the general condition of the patient improves.

A FEW PRACTICAL POINTS IN THE TREATMENT OF POSTERIOR URETHRITIS.—This paper was read by Dr. A. Ravogli, of Cincinnati, Ohio. The author recapitulated the principles of the treatment for this disease as (1) irrigations with the Janet method in a recent case of gonorrhoea will in many cases prevent posterior urethritis. (2) Irrigation with the recurrent catheter with permanganate of potassium, followed by injections of protargol, will cure in a relatively short time a case of subacute posterior urethritis without complications. (3) When chronic posterior urethritis lasts for a long time, and has caused infiltration of the submucous tissues, then the application of a sound with ichthyol salve gives the best results.

Dr. F. E. Kelly, of Lamoille, Ill., read a paper on *VARICOCELE*. The author outlined the operation for radical cure and the indications for its performance. He considers Bennett's operation of resection of the veins and shortening of the spermatic cord the ideal radical procedure, which he described in detail.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

ENFORCEMENT OF LEGISLATION AGAINST THE SALE OF COCAIN.

Not long ago, one of the Eastern papers called attention to the cocain habit in New Orleans and the facility with which the drug was purchased and the consequent increase in the number of those addicted to the use of the drug. The police courts showed evidence of this, and as a direct result of the necessity for it the State of Louisiana and the city of New Orleans legislated against the sale of cocain. The substance of the enactments was that cocain should not be dispensed except under a physician's direction or prescription, and that infringement of this law should be punishable by a fine of \$25 to \$100 or imprisonment for thirty days, or both.

Within the month the city authorities have undertaken to enforce this law and have already brought several druggists and druggists' vendors to justice.

Slow as has been the recognition of the need and enforcement of such reform, the JOURNAL praises the effort, and in it sees the beginning of a work which is self-evident.

The ease with which the commoner poisons are purchased is appalling, when the actual and possible consequences are considered. A glance at the list of methods employed for suicidal purposes discloses a large percentage of employment of carbolic acid, the salts and preparations of opium, arsenic, chloral, etc., the very frequency arguing the easiness of purchase, rather than the preference in method of death.

The druggist has for so long assumed the part of the physician by his counter prescribing and sale of remedies for fancied, trumped up, or real diseases, that he has grown careless in such dispensing and it needs little argument to obtain any kind of any drug from the average druggists who are conscienceless in

the matter—some of them even enjoying a certain pre-eminence for their leniency in dispensing opium, morphin, cocain, and such—some even going so far as to have agents who go from house to house of preferred customers and secretly dispose of their contraband goods.

The law should be enforced and stringently, but it should be constantly and additionally amended to include all kinds of poisons as well as cocain, for while just at the moment this one drug is notably abused and needs the attention of the law, as soon as the restrictions are made other equally dangerous drugs will be substituted.

The law which created the State Board of Medical Examiners provided for such infringements and makes it a legal offence for a druggist or any one else to dispense nostrums or drugs, but that board seems to have drifted into a blissful desuetude, save when candidates for licenses apply.

We have urged the importance of these things before, and now that in one thing the power of the law is acting, encouragement should be given that power to broaden its purpose and to strengthen its effort in reform, especially where human life and health are at stake.

CLEAN STREETS.

Many months ago we referred to our local street cleaning system, insisting upon the importance of the question from a hygienic standpoint. We called attention to some flagrant defects in the methods then employed and expressed the hope that the Commissioner of Public Works would correct these evils.

To-day we desire to state our gratification at the improvement wrought by Mr. McGary, and to congratulate him upon what he has accomplished with the limited means at his command. The city is cleaner than we have ever seen it. Much more is to be done, notably the abatement of the dust nuisance by proper sprinkling; yet, what has been gained is an object lesson to those upon whom devolve the paving, drainage and sewerage of our city.

It is of no use to bemoan the fact that we have not enough money; what we have will go much further with energy and

system, and we must simply get more. A fraction of what is wasted in spasmodic spells and through business losses on account of quarantines and the bad impression created by our grass-grown gutters and unpaved streets would secure for us all necessary sanitary improvements.

Physicians should play the role of educators on this subject and join in a sanitary crusade for the regeneration of New Orleans. Not the doctors of New Orleans alone, but those of the whole State, even of the entire South, for what benefits New Orleans helps the State, and is to the advantage of all this section. Besides having the satisfaction of doing good, medical men would profit directly by improved financial conditions, for no class depends more upon general prosperity.

Medical News Items.

THE ELEVENTH ANNUAL MEETING OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION, which was announced to be held in Memphis, Tenn., Tuesday, Wednesday and Thursday, November 8, 9 and 10, has been postponed till Tuesday, Wednesday and Thursday, December 6, 7 and 8, 1898, on account of the quarantine regulations in some parts of the South. The Gayoso House has been selected as headquarters for the association.

A list of papers to be read has been issued, on which the names of Drs. F. W. Parham, R. Matas and W. E. Parker appear as contributors from New Orleans.

AT THE MEETING OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION, held in October, resolutions were passed, deprecatory of the Behring antitoxin patent, based on the fact that such patent had been refused in several other countries.

The resolutions are directed to American practitioners as a protest and approve a possible national revision of existing patent laws. Other associations, medical and pharmaceutical, have passed analogous resolutions.

At the same meeting the officers elected for the ensuing year were as follows:

President, Dr. Duncan Eve, Nashville; first vice president, Dr. A. J. Ochsner, Chicago; second vice president, Dr. J. C. Morfit, St. Louis; secretary, Dr. Henry E. Tuley, Louisville, re-elected; treasurer, Dr. Dudley S. Reynolds, Louisville, re-elected.

Chicago was selected as the place for holding the next meeting, the time of which is to be fixed by the committee of arrangements and the executive officers.

The Bureau of the Medical Press was a prominent feature of the exhibit hall, occupying the speaker's rostrum in the centre of the Senate Chamber. A number of medical periodicals were represented, among them the JOURNAL.

THE AMERICAN MICROSCOPICAL SOCIETY, at its recent annual session, elected the following officers for the ensuing year: President, Dr. William C. Krauss, of Buffalo; first vice president, Prof. A. M. Bleile, of Columbus, Ohio; second vice president, Dr. G. C. Huber, of Ann Arbor, Mich.; secretary, Prof. Henry D. Ward, of Lincoln, Neb.; treasurer, Magnus Pflaum, of Pittsburg; executive committee, Prof. S. H. Gage, of Ithaca, Dr. A. Clifford Mercer, of Syracuse, and Dr. V. A. Moore, of Ithaca.

THE APPOINTMENT OF RESIDENT SURGEONS OF THE EYE, EAR, NOSE AND THROAT HOSPITAL. New Orleans, will take place on the first Wednesday in December, at the meeting of the Board of Trustees, and candidates are requested to hand in their applications at once.

SUPERVISING SURGEON GENERAL WALTER WYMAN, of the Marine Hospital Service, paid a short visit to New Orleans during the latter part of October, in order to review the work of his department in this section.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE has increased its course from three to four years.

THE MEDICAL DEPARTMENT OF TULANE UNIVERSITY will open on November 28.

OUR ARMY SURGEONS FROM NEW ORLEANS are still coming home. Among those who have returned since our last edition are Drs. Hamilton P. Jones, W. M. Perkins and H. B. Gessner.

THE NEW ORLEANS POLYCLINIC will begin its session of 1898-99 on November 24, which is earlier than ever before, while it will close about the usual date in May.

THE KENTUCKY SCHOOL OF MEDICINE CONTROVERSY has been decided permanently by the Court of Appeals in favor of Drs. Kelley and Woody, Dr. Wathen being enjoined from claiming to be dean of the school.

THE ATLANTIC WEEKLY suspended publication on October 1. The unexpired subscriptions have been transferred to the *Philadelphia Medical Journal*.

THE KANSAS CITY LANCET will hereafter be the name of the former *Langsdale Lancet*. With the change of name, Dr. Langsdale retires as editor in favor of Dr. John Punton, of Kansas City.

SPECIAL ATTENTION is called to the following, received as we go to press:

"To the Editors Medical and Surgical Journal: Having received to-day a circular advertisement from one Dr. Frank Fenwick Young, of Abbeville, La., in which my name figures as one of his references, I desire through the medium of your journal to state that I regard such use of my name as unauthorized and unwarranted.

Very sincerely yours,

E. S. LEWIS, M. D."

New Orleans, October 26, 1898.

ACCORDING TO A WRITER IN *Punch*, Professor Virchow must be a pessimist, as he says life is a c(s)ell!

Is it not a little inconsistent, however, in the same writer to say, "Virchow is its own reward?"

Abstracts, Extracts and Miscellany.

Department General Surgery.

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

BONE GRAFTING.—Berger, in *Médecine Moderne*, of September 14, 1898, reports on the grafting of living bones, as advised by Ricard.

Ricard's first case was a bone grafting of the skull. The graft took very well. Five years afterward the patient had a recurrence of the tumor which had necessitated an extirpation of a part of the skull. The graft was, however, not invaded by the neoplasm.

The second case was a woman with a deformed nose. Ricard shaped a bridge from one of her fourth metacarpal bones and sutured the integuments over it.

Long afterward on palpation, one could feel the integuments yielding to pressure, indicating the absorption of the bony strips.

Berger compares these operations to others by which a metallic support is given to the skin and especially to the nose.

These metallic props of Claude Martin are not easily maintained in place.

It is better to perform osteoplastic operations, the results of Ricard being so encouraging.

When these bone strips are absorbed they are replaced by cicatricial tissue, answering their purpose, and sufficient to correct the deformity.

Berger thinks that it would be preferable to borrow a graft from an animal than to take it from the patient.

Comment.—These cases are certainly encouraging, as indicating the possibility that the bone-grafts will not be removed by absorption, the fear of which has, of course, been the main objection to their use.

TWO CASES OF APPENDICITIS ILLUSTRATING DIFFICULTIES IN DIAGNOSIS.—Professor Dieulafoy, in *Journal de Médecine*, September 10, 1898, relates two interesting cases of appendicitis.

The first patient was seized on a Saturday with very violent pains in the abdomen, and entered the Hotel Dieu the following Monday. The diagnosis was unmistakable, the patient himself designating McBurney's point as extremely sensitive, even to most gentle pressure. There was, however, no fever, but owing to the intensity of the symptoms, peritonitis was feared. Dieulafoy hastened the patient to operation; pus and adhesions were found, with the appendix coiled behind and about to perforate.

Diffused peritonitis would certainly have soon set in, had the surgeon not intervened. This is, in reality, a typical type of appendicitis remarkable only as to its intensity, and its operative indications, saving thereby the patient's life.

On the contrary, with the second patient's case, the diagnosis was very much more difficult and operative indications more puzzling.

This patient was taken two years previous with pains somewhat diffused on the right side of the abdomen, accompanied by vomiting and constipation. He had a second but less violent attack shortly afterward.

The symptoms during a third attack were still so obscure as to cause a doubt between the existence of hepatic and nephritic colic.

A fourth attack recently seemed not to involve the cecum, and as there existed great pain in the testicle, the physician in charge diagnosed nephritic colic.

The trouble lay between appendicitis and nephritic colic, and, were it not for the testicular pain, the former would have been unhesitatingly diagnosed, as the previous attacks resembled appendicitis more and the pain was localizing itself more and more to McBurney's point.

However, it was not the first time Professor Dieulafoy noticed pains in the testicle during attacks of appendicitis. He saw a patient whose bladder Professor Guyon explored to explain the testicular pain.

Thrice since then has Professor Dieulafoy seen cases of appendicitis accompanied by retraction of the testicle, so that in

the present case he did not pay much attention to this single symptom.

On the other hand, in nephritic colic, the kidney is always more or less painful; it was not so in this case.

The pain in nephritic colic is as severe as it is sudden, whilst in appendicitis pain increases progressively, although rapidly. Lastly, and especially, nephritic colic ceases abruptly; pain in appendicitis diminishes gradually, which is precisely what occurred to this man during his previous attacks.

Professor Dieulafoy diagnosticated the case one of appendicitis, and although almost entirely recovered, strongly recommended surgical intervention. In a later clinical lesson, Professor Dieulafoy gave the sequel to this interesting observation, as the operation explained the cause of the testicular pain.

The appendix was found to be club-shaped, distended with liquid and the appendicular canal obliterated.

It was a typical specimen, but M. Marion, the operator, remarked that the appendix was horseshoe-shaped and lay on the posterior surface of the cecum.

In this position, the ascending variety of appendicitis, the organ lay on the ilio-psoas, to which it was adherent. The genito-crural nerve, of which a branch is sent to the cremaster and testicle, passes here. It is not astonishing, then, that during the acute attacks pain should radiate down to the testicle.

This is a fact of pathological anatomy which is very interesting to know, explaining the similarity which exists at times between appendicitis and nephritic colic.

Department of Obstetrics and Gynecology.

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

DISCUSSING THE RELATION OF THE GREAT NEUROSES TO PELVIC DISEASE, Dercum prefers to substitute the term *fatigue neurosis* for *neurasthenia*, believing it to be a far more expressive term.

The symptoms of neurasthenia are classed as sensory, motor, general somatic, and psychic disturbances, all pointing to chronic fatigue. To this classification of symptoms of neurasthenia a secondary or adventitious classification is added, comprising sensation of pressure, constriction, fullness, throbbing, etc., due most probably to intra-cranial disturbances, and are not directly fatigue sensations. Increased nervous irritability together with persistent nerve weakness are considered the two cardinal conditions of fatigue neurosis, which, in substance, means increased reaction of the organism to external impressions. Hysteria is styled psychoneurosis. The prevalent belief that hysteria is a disease without a syndrome is denied; in fact, it is claimed that the syndrome is as fixed and as definite as that of any other disease with which we are acquainted. The physical symptoms present in it are dominated by mental phenomena, themselves the result of genuine and profound affection of the cerebral centres.

There is no relation between hysteria and pelvic disease, even though the affections coexist; and while in hysteria there is increased reaction to external impressions, the relation is purely psychic. The idea of curing neurasthenia or hysteria by operations upon the pelvic organs must be absolutely abandoned. Nervous symptoms due directly to pelvic diseases are few in number and consist of pains within the pelvis proper, to the lower portion of the back, sacrum, to the hips and thighs, and occasionally sacral neuralgia. The pain areas of hysteria bear no relation to disease of the deep structures—*Annals of Gynecology and Pediatrics*.

THE DRAINAGE OF PURULENT COLLECTIONS LOW DOWN IN THE BROAD LIGAMENT BY LATERAL COLPOTOMY is favored by Dr. E. Doyen. This is effected by boldly plunging a long forceps into the inflamed ligament, thereby draining thoroughly the spaces about the uterine artery. This he has practised several times with eminent success. The subsequent dressing consists of a tampon of gauze saturated with a 25 per cent. carbolic solution.

Dr. Theodor Landau (*loc. cit.*) remarks that the permanent results of these operations—the patients being kept under careful and continual observation—lead to the conclusion that those patients operated on by vaginal celiotomy for true genuine—

not inflammatory—tumors and for extra-uterine pregnancy without severe inflammatory symptoms, have been permanently cured. On the other hand, of the patients in whom inflammatory conditions led to the operation, only 20 per cent., at best, have been cured. In comparing the abdominal and vaginal routes he further states that the immediate dangers are less in vaginal celiotomy, due principally to the fact that the position of the patient during the operation prevents physical irritation by cooling and undue handling of the intestines. The cicatrix after vaginal celiotomy is formed rapidly and solidly, and is preferred by the patient because it is invisible.—*Trans. Brit. Med. Association*, 1898.

THE SURGICAL TREATMENT OF IRREDUCIBLE RETROFLEXION OF THE PREGNANT UTERUS.—Dr. Mann (*American Journal of Obstetrics*) says that in cases of retroflexion of the gravid uterus, with incarceration, the usual treatment is either to replace the uterus, or, if that be impossible, to empty it, and save the life of the mother. If, after a trial of the usual methods, it is impossible to replace the uterus, the abdomen should be opened by median incision, and the uterus raised by introducing the hand behind it. In case the pelvis is completely filled by the enlarged uterus, efforts to replace it per vaginam usually fail, for the reason that nothing can enter from above to take the place of the uterus when it is pushed up, and as soon as atmospheric pressure is removed from below it sinks to the old position. If pregnancy exists with adhesions it will be almost impossible to replace the uterus without the aid of the hand in the abdomen. Dr. Mann has resorted to this operation in two instances with gratifying results. In one of the cases a subsequent pregnancy occurred, which proceeded to term and passed through a normal labor.

Department of General Medicine.

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

ACUTE ABSCESS OF THE LUNG—RECOVERY.—Dr. Clozier reports the case of a boy thirteen years old, without any inherited or

acquired taint, enjoying good health, except a few light attacks of angina, who, after a ride on his bicycle in the rain, was taken with repeated chills on the same day and with malaise, anorexia, cough, fever, etc., on the next and following days.

Dr. Clozier was called in June 20 and found that both lungs in their entirety were affected. Posteriorly, on both sides in the infra-scapular region, numerous dry râles were noted, fine and superficial. In the scapular region, medium sized subcrepitant râles on the right side were heard, while on the left side there existed, moreover, at the scapular inferior angle very well marked bronchial respiration (indicating consolidation of lung substance). At the scapular inferior angle on the right side, in a space equal to the consolidated substance on the opposite side, there was a friction sound. At the apex on both sides in various degrees mucous râles were heard. Expectoration scanty and appeared like muco-pus, of a yellow color free from Koch's bacillus, but swarming with streptococci. An energetic treatment was begun at once, stimulants and derivatives, including vesication.

June 26 condition is worse and an injection of 20 *c. c.* of anti-streptococcic serum is made. June 27, 28 and 29, injections of 10 *c. c.* The general condition remains in *statu quo*; locally, there is an aggravation in the scapular region on the left side, tubular respiration, gurgles and pectoriloquy. Dose of serum increased to 20 *c. c.* for three days. On July 1, 2 and 3, patient feels better in the daytime and sleeps at night. He nourishes with more appetite.

The pulmonary abscess located at the inferior angle of the left scapula emptied itself; cavernous respiration. July 3, 4 and 5, notable betterment. The stethoscopic phenomena disappeared over all the extent of the lungs and instead of cavernous respiration at the abscess spot, tubular respiration has again reappeared.

July 6, no injection. July 7, last injection; the patient walks around. July 17, he is discharged as cured. In this case the general condition could have led to the belief that a subacute tuberculous infection was in course and the stethoscopic signs in the scapular region on the left side justified that fear. The temperature alone was sufficient to mislead in the diagnosis. Through the agency of the specific serum (Marmorek's anti-

streptococcic serum) in eight days the temperature was regulated, the general condition adjusted and recovery attained. —*Académie de Médecine.*—*L'Echo Médical du Nord*, August 21, 1898.

REGIMEN IN MUCO-MEMBRANOUS COLITIS.—Believing, like Leube and many other authors, that membranous colitis may exist at times alone, independently of the slightest entero-colitis, particularly so in hysterics and neuropaths, Prof. V. Noorden recommends for such cases the following treatment (*Zeitsch. f. prakt. Medizin*):

During the attack rest in bed, suppositories of belladonna and cocain, followed by a rectal injection as high as possible of from 300 to 400 grammes of oil, which causes a stool carrying mucosities.

In the intervals of the attacks, educate the alimentary canal to work normally by following an appropriate regimen. To that effect he prescribes bran bread, very rich in cellulose, a maximum quantity of 250 grammes daily, vegetables, fruits, etc. * * * Oil and fat have also a favorable action in that direction, and they are, besides, very nutritious. At first, such a regimen may rather favor a repetition of the attacks, yet Noorden insists upon beginning it at once to abbreviate the period of pain, which is otherwise inevitable. In case of need, carbonate of lime should be used in making the patient's bread.

As auxiliary measures, Noorden resorts to rectal injections of oil (70 to 80 grammes), laxatives, foot-baths, and warm poultices applied during one hour after each meal; finally, as regards the drinking part of the regimen, he recommends mineral waters, save the Carlsbad, for it often exhausts the patients.

Out of fifteen cases treated in this manner, seven were cured, absolutely cured; three recovered for a while, relapsing from three to six months later; one absolutely failed to derive any benefit whatsoever, and three were only temporarily relieved.

Considering the difficulties met with usually in treating muco-membranous colitis, these results are pretty satisfactory.

—*Médecine Moderne.*

Department of Therapeutics.

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

QUININ IN MALARIA.—Dr. J. S. Van Marter, Jr., thus summarizes his conclusions :

1. As a preventive, quinin will not do for those who are compelled to live indefinitely in a severe malarial climate, since it acts in time as a vasomotor poison.

2. Quinin acts nearly as a specific in all malarial fevers characterized by intermissions or well-marked remissions, but fails in continued fevers, those with typhoidlike symptoms, those malarial conditions without high temperature, and the cachexias and anemias due to malaria.

3. Quinin is thus a poison to the plasmodium itself, but useless against the toxin manufactured by it.

4. In the last condition Warburg's tincture has an action, not yet understood, on the toxin (or eliminative system) by which the system is put in condition to be benefited by quinin.

5. Quinin should never be used in hemoglobinuria, or given subsequently to one who has suffered from it, being liable to bring about a recurrence of the condition.

6. Only those living in regions of severe malaria can become competent to settle the question *pro* or *con*.—*North Carolina Medical Journal*.

CIMICIFUGA IN TINNITUS AURIUM.—Drs. A. Robin and Mendel (*Medical Bulletin*), after careful analysis of several cases, arrive at the following conclusions: Buzzing of the ear may be considered as the reaction of the auditory nerve to direct or reflex irritation. *Cimicifuga racemosa* possesses an action upon the auricular circulation and upon the reflex irritability of the auditory nerve. The average active dose is thirty drops of the fluid extract a day. Buzzing which has existed for more than two years appears difficult to influence by *cimicifuga*.

RECOVERY AFTER TAKING TWENTY GRAINS OF STRYCHNIN.—Dr. H. S. Leffingwell, of Milwaukee (*Philadelphia Medical Jour-*

nal), reports the case of a 26-year-old man who took twenty grains of strychnin with suicidal intent. The patient was under treatment eleven hours, but the length of time he had taken the strychnin before Dr. Leffingwell's arrival could not be ascertained. The patient recovered under chloral hydrate, potassium bromide and morphin sulphate. The symptoms were those of typical strychnin poisoning.—*Medicine*.

ASTHMA.—The celebrated “*Cigarettes d’Espie*” are said to be made of the following ingredients :

℞ Belladonna leaves.....	5½ parts.
Hyoscyamus leaves.....	2¾ parts.
Stramonium leaves.....	2¾ parts.
Phellandrium aquaticum.....	1 part.
Extract of opium (aqueous).....	⅛ part.
Cherry laurel water.....	q. s.

The dried leaves, stripped of their stems are cut small, well mixed and then moistened with the extract of opium dissolved in the cherry laurel water. The paper used for making the cigarettes is also soaked in an infusion of these leaves in cherry laurel water. Usually in making these cigarettes, a little nitrate of potash is added to the infusion to make them burn freely.

The *Carton Fumigatoire* of the French codex, a very useful preparation, is thus made: Take 7 ounces of gray unsized paper and 2 ounces of powdered nitrate of potash; take of belladonna, stramonium, digitalis and lobelia leaves, each 75 grains; take of powdered myrrh and olibanum, each 150 grains. Tear the paper in pieces and soak it in water, then add the powders previously mixed, and pound and beat them all together. Then spread out the soft paste in tin moulds and dry it in a stove. Finally, cut this quantity into 36 pieces, each 6 cm. long and 4 cm. wide. One of these is burned in the patient's room.

The following is given as Himrod's cure :

℞ Lobelia leaves powdered.....	} aa ʒj
Black tea leaves powdered.....	
Stramonium leaves powdered.....	

Pour upon this mixture 2 ounces of a saturated solution of nitrate of potash, mix thoroughly, and dry.—BURNEY YEO, *A Manual of Medical Treatment*.

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.

An American Text-Book of Gynecology, Medical and Surgical. For Practitioners and Students. By HENRY T. BYFORD, M. D.; J. M. BALDY, M. D.; EDWIN B. CRAGIN, M. D.; J. H. ETHERIDGE, M. D.; WILLIAM GOODELL, M. D.; HOWARD A. KELLY, M. D.; F. KRUG, M. D.; E. E. MONTGOMERY, M. D.; W. R. PRYOR, M. D.; GEO. M. TUTTLE, M. D. Edited by J. M. BALDY, M. D. Second Edition, revised. With 341 illustrations in the text, and 38 colored plates. W. B. Saunders, Philadelphia.

Four years ago the medical profession was presented with the first edition of this exhaustive and beautiful work on gynecology. To-day the second edition makes its appearance equally complete and handsome. The contributors are numerous and well known. They need no introduction. The book is practically the same as that issued in 1894, with a little modification and addition here and there. One still finds strongly recommended the packing of the uterine canal with gauze after curettage with the sharp curette for the cure of endometritis, a procedure that to-day is losing ground. Drainage with the perforated or grooved stem pessary is repudiated. This method of drainage appears to be gaining ground. The author says that "drainage with the stem pessaries is a delusion, and they are mischievous affairs."

Objection is raised to curettage with a dull curette, claiming it to be inefficient, and that such inefficiency renders it more dangerous than the sharp instrument. The attack on electricity as a remedial measure in endometritis is renewed.

In this edition the typographic error which made the writer on inflammatory diseases of the uterus say that conception occurred five days after curettage is corrected so as to read five weeks.

The experience of most gynecologists who read this chapter will incline them to think that the rapid cures claimed for curettage are rather too flattering.

The treatment of gonorrhoea with permanganate of potash is evidently not thought much of, as it is not mentioned in the chapter on this disease.

All the above views are found in the first edition. The chapter on diseases of the urethra, bladder and ureters has been mostly rewritten, and contains much that is new, especially on the surgery of the ureters.

The position is assumed that only a small percentage of retroversions of the uterus cause annoyance unless there exists some inflammatory complication or the result of such complication; and, therefore, the applicability of Alexander's operation is extremely limited.

The different chapters are well written and appear to reflect mature thought. While some of the premises or conclusions in the arguments presented might not be accepted by many, still they are those of the writers of this particular book. To some also the book might appear too operative. We would like to respectfully subscribe ourself one of those. The work is handsomely illustrated and finished.

MICHINARD.

A Manual of Obstetrics. By A. F. KING, A. M., M. D. Seventh Edition. With 223 illustrations. Lea Bros & Co., Philadelphia and New York, 1898.

This edition appears to be a great improvement on the previous issues. In its present form it is certainly a very good book, containing much information given in a simple, practical and intelligent manner.

The author seems rather doubtful of the necessity of terminating pregnancy in eclampsia unless other methods have failed to relieve.

In the preparation of the patient for delivery he recommends a pre-labor douche of a 1-2000 bichloride of mercury solution, a procedure that to-day receives little approval.

The chapter on septicemia is rather complete. In speaking of the treatment of this affection he wisely says: "Two things at least are of the utmost importance, and in their curative influence probably outweigh that of all other remedies combined. These two things are: First, thorough aseptic and antiseptic disinfection of the parturient canal, from vulva to Fallopian tubes; second, general support of the patient by food and stimulants."

For the promotion of the flow of milk he recommends crabs, soft or hard shelled, and boiled beets. These articles of food he believes to be very efficacious.

MICHINARD.

A Treatise on the Science and Practice of Midwifery. By W. S. PLAYFAIR, M. D., F. R. C. P., etc. Seventh American from the Ninth English Edition. With seven plates and 207 illustrations. Lea Bros. & Co., Philadelphia and New York, 1898.

A world of practitioners of obstetrics will gladly welcome this new edition of so reliable a masterpiece on midwifery, and multitudes of students will be benefited. There is no question of the position Playfair's Midwifery occupies in the long list of works on this important branch of medicine. To no better counsellor could the embarrassed accoucheur apply for advice and assistance. This edition is somewhat more complete than any of its predecessors, containing more on bacteriology and embryology.

This book can not be too strongly recommended.

MICHINARD.

Diseases of Women: A Manual of Gynecology. Designed especially for the use of Students and General Practitioners. By F. H. DAVENPORT, A. B., M. D., Assistant Professor in Gynecology, Harvard Medical School, etc. Third Edition, Revised and Enlarged. With 156 illustrations. Lea Bros. & Co., Philadelphia and New York, 1898.

This short work contains much of practical information; about all the student or general practitioner cares to know, or as much as he has time to familiarize himself with. It was probably an error to include in such an elementary work the operation of salpingectomy and shortening of the round ligaments, such operations requiring for their successful performance much more experience than the general practitioner possesses.

MICHINARD.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By GEORGE FRANK BUTLER, Ph. G., M. D. W. B. Saunders, Philadelphia, 1898.

This volume can be warmly recommended to the student of medicine, furnishing as it does an intelligent and comprehensive treatise on *Materia Medica, Therapeutics and Pharmacology*. A valuable addition to the work is a chapter on *Untoward Effects of Drugs*, taken from the tabulations of Drs. W. L. Baum, J. G. Kierman, of Chicago; Lewin, of Berlin, Germany, and Mulheron, of Detroit, Mich.

Prof. Carl S. N. Hallberg contributes a most excellent chapter on "Weights and Measures." The chapter on Prescriptions is exceptionally complete and clear.

STORCK.

A Manual of Clinical Diagnosis by Means of Microscopic and Chemical Methods. By CHARLES E. SIMON, M. D. Lea Bros. & Co., Philadelphia, 1898.

We made the acquaintance of this work when the first edition appeared in 1896, and it has been our constant companion ever since. It is a source of gratification to us to see a second edition issued, proving, as it does, that the American medical profession is fully alive to this, the most important, branch of their calling; and a pleasure to know that the number of physicians who appreciate the importance of making careful examinations of urine, sputum, blood, gastric juice, etc., is ever on the increase. The physician who is too busy to conduct, or cause to be conducted for himself, examinations of the urine, etc., can not be conscientious.

The work is embellished with numerous illustrations and plates, several of the latter being new. Plate No. VII, the Boas-Oppler bacillus, is the best we have seen.

New methods of chemical examination have been embodied and some of the older ones omitted.

The parasitology and bacteriology of the blood, saliva, etc., have been almost entirely rewritten, bringing the work to a modern standard of the knowledge of these subjects.

Written by an accomplished chemist and microscopist, every page contains a fund of practical information.

STORCK.

A System of Practical Medicine. By American Authors. Edited by ALFRED LEE LOOMIS, M. D., and WILLIAM GILMAN THOMPSON, M. D. Vol. III. Diseases of the Digestive System, of the Liver, Spleen, Pancreas and other Glands. Gout, Rheumatism, Diabetes and other Constitutional Diseases Vol. IV. Diseases of the Nervous System and of the Muscles. Diseases of doubtful origin, Insolation, Addison's Disease, etc. Lea Brothers & Co., Philadelphia and New York, 1898.

This great work, now completed, was undertaken jointly by Professors Alfred Lee Loomis and Gilman Thompson, but, by reason of the untimely death of his distinguished collaborator, Professor Thompson was left to complete the labor of editing these volumes. Considering the magnitude of the task, the production of the work, with such satisfactory promptness under the circumstances, is highly creditable to both the editor and publishers. The medical profession, many members of which have looked forward with agreeable anticipation to the completion of this great "system," will find the third and fourth volumes fully up to the high standard of excellence noted in the first two. The need of such comprehensive works in the present state of medical knowledge is now universally recognized. The one volume, "Practice of Medicine," while still useful as a hand-book, no longer satisfies the requirements of the vast army of readers engaged in general practice. Hence the necessity of such a "system." There is, however, one disadvantage, viz.: the encouragement thus given to individual authors to indulge in an inclination to pedantry. By some satisfactory understanding with his contributors, or by judicious editing, Professor Thompson has managed to avoid this fault in a marked degree. Where all is so excellent it is difficult, without unfair discrimination, to comment on any special section of such a work. Naturally, certain departments of medicine, which in recent times have witnessed notable advances, have been given the space which they deserve. As regards press work, paper and illustrations, the name of the publishers alone is sufficient to guarantee the highest possible excellence.

PATTON.

Lectures on Renal and Urinary Diseases. By ROBERT SAUNDBY, M. D. Edin. W. B. Saunders, Philadelphia, 1897.

These lectures had been published in part already in separate volumes. After revisions and additions they are republished in one volume, making them more convenient for reference.

The volume is in four sections. The first deals very completely with Bright's disease, its pathology, etiology and classifications as well as its results and complications getting adequate attention, while treatment is not neglected. The second explains the different methods resorted to in the clinical examination of the urine. Diabetes, both forms, takes up the third section, which is perhaps the best. The fourth is devoted to miscellaneous renal diseases; it is the least meritorious, useful only for reference, as it can not deal satisfactorily with the numerous subjects, many of which are strictly surgical.

C. C.

The Diseases and Injuries of the Conjunctiva, especially the so-called Granular Lids. By JOHN H. THOMPSON, M. D. Hudson Kimberly Publishing Company, Kansas City, 1898.

This little book, written with a view to assist students of medicine and general practitioners in recognizing and treating diseases and injuries of the conjunctiva, is without doubt well calculated to fulfil its mission. It is valuable principally on account of its familiar style, freedom from unimportant classifications, clearness and precision of detail, reflecting in many parts the author's own views, evidently the fruit of a wide experience.

ROBIN.

Lectures on Tumors. By J. B. HAMILTON, M. D. Third Edition. Philadelphia, 1898, Blakiston & Son.

This little book treats of the general pathology and clinical history of tumors. It will prove, we believe, a useful guide to the student and to the practitioner.

P.

Text-Book of Diseases of the Kidneys and Genito-Urinary Organs. By DR. PAUL FURBRINGER. Translated by W. H. GILBERT, M. D. Vol. II. H. K. Lewis, London, 1898.

A useful, clearly and concisely written text-book. The multitude of subjects included necessitates that each be merely touched upon, but that is done with skill, and abundant references are given to guide those who may desire to go more deeply into any question.

C. C.

A System of Medicine by Many Writers. Edited by THOMAS C. ALLBUTT, M. A., M. D., F. R. C. P., etc., Vol. VI. The MacMillan Company, New York and London, 1898.

Like its predecessors, this volume of Allbutt's System is full of valuable material. The subjects treated are diseases of the respiratory system, of the pleura and of the circulatory system. No pains have been spared in making the discussion of each subject complete and modern. Some eighty-five pages, for example, are devoted to phthisis pulmonalis, which subject is handled from all conceivable points of view. The article on the Clinical Examination of the Blood is exhaustive.

Illustrations are judiciously placed, though not numerous.

DYER.

Hay Fever and Its Successful Treatment By W. C. HOLLOPETER, A. M., M. D. P. Blakiston's Son & Co., Philadelphia, 1898.

In a work of some 130 pages the author exhaustively handles the question of hay fever, giving a complete history of the literature, the etiologic elements, the theories of cause and the symptoms peculiar to the disease.

In the chapter on Treatment the author reviews the results obtained after the treatment of 200 cases in ten years.

After establishing the premises that antiseptic cleanliness of the nasopharynx is the *sine qua non* of treatment, the author insists that a thorough examination of the nasal and pharyngeal chambers should be made and any abnormalities corrected.

Dobell's solution is the local wash recommended, and thoroughness is insisted upon.

DYER.

The Lost Waif, or Social Quarantine, is the title of a book written by Mr. Horace Fletcher, sometime resident of New Orleans. The author has seen so much of the world that any opinion advanced by him upon sociologic questions must carry weight.

In the book just out he attacks existing conditions among the pauper classes, dealing with the problems of pauperism, neglected children in large cities, youth depravity, prison reform, and incidentally touching upon the social evil. All these questions the author holds as akin and amenable to absolute correction.

The text of his book is the "Hopelessly submerged 10 per cent. stratum" of every urban population, at which the efforts of the Salvation Army have been directed hitherto.

Educational and environmental methods are suggested and urged in the fulfilment of the reclamation of these classes of victims of civilization.

That the style of the book is strong must appear to every intelligent reader, the more so as the work has been written for charity's sake and has been published under the auspices of the Kindergarten Literature Company, Woman's Temple, Chicago, where it can be had for \$1.50. All interested in reform should have this book.

DYER.

PUBLICATIONS RECEIVED.

Clinical Manual of Skin Diseases, by W. A. Hardaway, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Louisiana State Normal School, Catalogue and Announcement.

Report of Kensington Hospital for Women, 1897.

Manual of Chemistry, by W. Simon, M. D.—Lea, Bros. & Co., Philadelphia and New York, 1898.

Manual of Otology, by Gorham Bacon, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Cyclic Law, by Thos. E. Reed, M. D.—Published by author, 1898.

Introduction to Pathology and Morbid Anatomy, by T. Henry

Green, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Practical Diagnosis, by Hobart A. Hare, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

The Refraction of the Eye, by Gustavus Hartridge, F. R. C. S.—J. & A. Churchill, London; P. Blakiston's Son & Co., Philadelphia, 1898.

Pocket Formulary for Disease in Children, by L. Freyberger, M. D.—The Rebman Publishing Co., London, 1898.

Report of Eye, Ear, Nose and Throat Hospital, New Orleans, 1897.

American Pocket Medical Dictionary, edited by W. A. N. Dorland, M. D.—W. B. Saunders, Philadelphia, 1898.

Essentials of Materia Medica and Therapeutics, by Hy. Morris, M. D.—W. B. Saunders, 1898.

The Care of the Baby, by J. P. C. Griffith, M. D.—W. B. Saunders, Philadelphia, 1898.

King's American Dispensatory, by H. W. Felter, M. D., and J. W. Lloyd, Ph. D.—The Ohio Valley Co., Cincinnati, 1898.

The Hygiene of the Voice, by Thos. F. Rumbold, M. D.—Witt Publishing Co., St. Louis, 1898.

REPRINTS.

The Aseptic Animal Suture: Its Place in Surgery. By Henry O. Marcy, M. D.
The Interdependence of Healthy Bodies and Healthy Brains. By Elmer Lee, M. D.

The Advantage of Physical Education as a Prevention of Disease. By Charles Denison, M. D.

Katatonnia. By Frederick Peterson, M. D., and Charles H. Langdon, M. D.

Acute Chloral Dementia Simulating Paretic Dementia.—The Value of Surgery in Nervous Diseases. By Henry W. Coe, M. D.

Beneficial Effects of the Withdrawal of Bromides in the Treatment of Epilepsy.—Vibratory Therapeutics.—New Paths in Psychiatry.—A Case of Amaurotic Family Idiocy, with Autopsy. By Frederick Peterson, M. D.

Hemorrhagic Glaucoma.—Report of a Case, with Micro-Photographs.—A Clinical Report on the Use of Argonin in Gonorrhoeal Ophthalmia.—The Determining Cause of the Site of Ulcers on the Nasal Septum.—A Case of Tenonitis.—Acute Inflammation of the Middle Ear. By E. C. Ellett, M. D.

A Contribution to the Surgery of Gastroptosis and Enteroptosis.—Preparation of the Patient for Operation. By Byron B. Davis, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR SEPTEMBER, 1898.

CAUSE.	White.....	Colored...	Total
Fever, Malarial (unclassified).....	15	7	22
“ “ Intermittent			
“ “ Remittent	4	2	6
“ “ Congestive.....	14	2	16
“ “ Typho	5	3	8
“ Yellow	6		6
“ Typhoid or Enteric.....	23	6	29
“ Puerperal			
Influenza.....	1	2	3
Measles			
Diphtheria			
Whooping Cough	3	1	4
Apoplexy	15	8	23
Congestion of Brain.....	10	1	11
Meningitis	10	2	12
Pneumonia.....	14	12	26
Bronchitis	10	6	16
Cancer.....	12	4	16
Consumption.....	39	32	71
Bright's Disease (Nephritis)	22	14	36
Uremia	6	1	7
Diarrhea (Enteritis).....	13	5	18
Gastro-Enteritis	6	1	7
Dysentery.....	4	3	7
Hepatitis	2	1	3
Hepatic Cirrhosis	2		2
Peritonitis.....	1	3	4
Debility, General	1	1	2
“ Senile	10	8	18
“ Infantile	1	8	9
Heart, Diseases of	29	14	43
Tetanus, Idiopathic			
“ Traumatic	8	1	9
Trismus Nascentium.....	11	10	21
Injuries	5	2	7
Suicide	4		4
All Other Causes	106	60	166
TOTAL	412	220	632

Still-born Children—White, 18; colored, 18; total, 36.

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

Death Rate per 1000 per annum for month—White, 25.35; colored, 31.06; total, 27.61.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 29.99
 Mean temperature..... 80.00
 Total precipitation..... 13.90 inches
 Prevailing direction of wind, northeast.

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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.]

SUBACUTE BRONCHITIS IN INFANTS AND CHILDREN.*

BY E. M. DUPAQUIER, M. D., NEW ORLEANS.

Like all general practitioners, I have attended a very large number of little ones, and I freely report here a few cases that may prove interesting, even to those who are well posted on pediatrics.

OBS. I. *Subacute Bronchitis*.—October, 1885, Anita D., 8 months old; fever, troublesome cough, large moist and dry râles in both lungs (infra-clavicular region anteriorly and supra-scapular region posteriorly), phlegm raised and vomited. Looking for the cause, there is no exposure to cold or contagion from other sick children in the neighborhood. Child well cared for. She is not rachitic or scrofulous. No tuberculosis in family, but her mother is a young woman (18 years), of small build, very nervous, suffering from defective digestion. Two months previously had a very severe attack of gastro-enteritis, at which time she was considered a hopeless case by two eminent physicians. A cessation of all drugs and food temporarily, a liberal use of pure water with a little sugar of milk in the homeopathic style, enteroclysis, bathing and fresh air gave a chance to the feeble organism, and she gradually recovered, with strictest care, precaution and patience taken as to her feed-

* Read before the Orleans Parish Medical Society, Nov. 26, 1898.

ing, trying the breast of a nurse, cow's milk, goat's milk in various dilutions. But she had been weakened by that severe attack of gastro-enteritis, and she was hardly cured of her digestive weakness when, I must confess it was with my consent, Nestlé's food was again brought in use, thinking that, at eight months old, the child could take some pap in addition to her milk. Since then, the child had never looked well. She had been restless, suffering with colic and intestinal distention. Then appeared the fever and bronchial symptoms, for which I was called. *For over twenty days* the child took medicines for bronchitis; but she got rid of it entirely only when strict diet was again established, and only when her gastro-intestinal symptoms were removed by feeding her exclusively on pure goat's milk. She maintained, while growing, a susceptibility to bronchial congestion, and had repeated attacks, which were bettered each time by giving close attention to her diet. She is now a pretty healthy girl.

OBS. II. *Subacute Bronchitis*.—September, 1887, Frank P., 5 years old; fever; cough and râles in the right superior region of the chest, anteriorly and posteriorly; no appetite; constipation, the latter being habitual. Child had been raised with the greatest difficulty, suffering from weak bowels and repeated colds every once in a while, the mother stated. The father had been a dyspeptic for years, she also said, and had died of a "bad cold he had contracted on the river" (tuberculosis?). She was a very healthy woman, 28 years old, and was ready to try anything to raise an only child, who had taken enough medicines, she said, to stock a good-sized drug store. The little fellow was not so deterred in growth; his complexion was pale, and he looked puffed; the chest was normally shaped, the flesh of his limbs was soft. His body was covered with flannel all the year round, and he was kept indoors when the least change occurred in the weather. He loved sweets and he indulged in them habitually. The attack for which I was called lasted eighteen days, and by that time his appetite had been increased and his bowels regulated. The hygienic education of the mother was made with ease, she being a sensible woman. One by one the bad habits were dropped. She learned the advantages of buying wholesome food for her boy, and of how to cook it so that her boy relished it. Flannel underwear grew thinner and thin-

ner, and she often took her boy to Covington, where he enjoyed open air. He is at present a strong and well-developed lad, well fed and has lost the old-time susceptibility to catch a cold.

OBS. III. *Subacute Bronchitis*.—July, 1894, Robert F., 5 months old; fever, cough and râles over the superior regions of chest anteriorly and posteriorly, a puny little babe. Has had vomiting and diarrhea for long periods. Fed from the bottle with condensed milk and some other food. The night previous to my visit, the babe had vomited curdled milk and heavy phlegm, and was since unable to retain his food. Upon examining the little thing I found in the palms and on the soles unmistakable pemphigus. I explained to the family that the child was born weak (syphilis), and that it would give them much trouble for several years. It was necessary, to avoid more trouble, first, to feed from the breast; second, to bring him to me at least once a month, that I might keep him under close observation. We got a nurse, and luckily the babe did take the breast. It was a colored servant in the house who consented to nurse him. She had a big fat negro babe, and neither he nor herself suffered from syphilis. Mercurial inunctions had been ordered as the treatment and everything, the bronchitis and the gastro-entéritis, was bettered in less than ten days. There was a falling out with the nurse when the child was about a year old, and the grandfather thought it was about time to wean the child and give him some rich food, as he did not think breast milk was sufficient for a weak child. Trouble began again, and as soon as indigestion made its appearance the bronchial catarrh recurred. It was no easy thing to keep that child alive for over a year. After he was two years old he began to eat; care was taken in preparing his meals, his appetite grew, and since that time his digestion has been very much improved. He has passed a whole year without any sign of bronchial disorder.

OBS. IV. *Subacute Bronchitis*. February, 1896.—Marie C., 12 years old; fever, cough, râles on the right side, a little expectoration. Headache, lassitude, no appetite, constipation. Called to see her at the Convent, where she lay in the infirmary. I could not have a clear idea of the commencement of the trouble, but fearing it was a case of typhoid I notified the Mother Superior and the family. Patient was brought home in a carriage and the whole family was deeply concerned about her

case. After a day or two, the bowels having been thoroughly emptied, Marie begged for something to eat. Her desire was not gratified and she was given milk as ordered by me. On my fourth visit the temperature was normal and the patient's appetite was increasing. The mother remarked to me that when Marie was at home she ate well, and looked well; that as soon as she returned to the Convent she began growing pale and suffered with cold from the least exposure. We all thought it was due to her ambition to work, and attributed it all to nervousness. The truth was discovered, viz.: that the girl did not get at the Convent the good, sound and pleasant meals she had at home. Some may disregard that part of the Convent life, but it is a fact that some children can not thrive on the usual menu, and they become dyspeptic because they eat little, depriving themselves rather than eat cold potatoes, for instance, or they fill their stomachs with cakes and candies which they manage to store up somewhere in their desks. Marie was kept home, and she is now a splendid specimen of girlhood. Her susceptibility to cold has vanished with the gratification of her normal and wholesome appetite.

OBS. V. *Subacute Bronchitis*. January, 1898, Guiseppina C., 10 months old; fever, cough, râles on both sides, anteriorly and posteriorly; gastro-enteritis; fed from bottle with condensed milk; a physician had seen her for over two weeks and the family suggested a consultation. I was called in. Case looked very bad. A sister-in-law in the house was nursing her own baby. I suggested her as a nurse. The sick baby took the breast. The father said one of his friends in the neighborhood of the City Park could supply him with mare's milk for feeding the baby. I told him it was a splendid opportunity. The baby has fed on one pint of mare's milk a day and she got well of her bronchial and intestinal troubles.

It is clinically evident, from the history of these cases, that the repetition of bronchial attacks and the persistency of the attacks were influenced by deficiency in the complex process of digestion, causing slow and, at times, unapparent auto-intoxication, telling upon the bronchi. It is now a clinical aphorism that the influence of infection from the intestine is of practical impor-

tance in respiratory disorders. It is, indeed, a common occurrence in pronounced cases of gastro-enteritis that the intestinal germs pass into the blood and invade the lungs. Such cases are usually acute infections of violent and rapid course, too often fatal. In a less degree we remark the relation of abnormal digestion and chronic bronchial troubles; yet Comby insists upon classing improper alimentation among the most prevalent causes of chronic bronchitis, viz., inherited syphilis, scrofula, rachitism, naso-pharyngeal disorders.

In a still much less degree the relation between the intestine and bronchi can be suspected when the digestive disorders are, so to say, latent, for in such cases auto-intoxication is a slow process and the dyspeptic symptoms are hardly noticed and reported by children, much less so by infants.

I am happy to be able to amplify, with details, this important point of dyspepsia in children by inserting here an abstract of LeGendre's paper before the late French Congress of gynecology, obstetrics and pediatrics: "In children, digestive disorders consist of the syndrome of atonic and flatulent dyspepsia, viz., distention of the epigastrium, belching with taste of food, acid regurgitations, stitches under the ribs and in the sides, frequent hiccough, habitual constipation with periods of sweeping flux; of the syndrome of hyperpepsia, usually unnoticed in children, appetite good with occasional gastric attacks, burning pains, relieved by eating and drinking, at times vomiting; all symptoms seem, particularly in nervous subjects, brought on by emotional causes, and to which usually a passing attention is hardly given.

"But there are a greater number of children," says LeGendre, "who do not complain of their digestion, and who yet present nervous disorders, failing health due to digestive disturbances, viz., headaches, cold extremities, tired feeling, lack of spirit at play and at study, wasting, icteric complexion, swollen lids, light and transient albuminuria, etc.

"When able to answer questions, these children will say they have to loosen their clothes after each meal, they have hiccough, incessant thirst, clammy mouth, scanty and painful stools, or soft stools every day, strongly offensive (note this), foul breath and sickening perspiration.

“ When examined, these children present a coated tongue, an irritated pharynx, dry and granulated, a gastric ‘*clapotage*’ permanent or beyond the physiologic limits after ingestion of liquids. Usually their abdominal walls are thin and without resistance, from lack of development of the recti and obliqui. Both the striped and unstriped muscles are weak, the stomach is dilated, and there exists gastro-intestinal atony, accompanying, and explaining, for the most part, the digestive and the general symptoms observed.”

One of these general symptoms and distant manifestations of this slow process of auto-intoxication, unperceived as it were, is repeated and stubborn attacks of bronchial catarrh.

There is a low fever and coughing, with secretions, lasting several weeks at times. It is not like an attack of acute bronchitis, lasting at most one week, and vanishing spontaneously.

It is not like chronic bronchitis, where fever is absent, and where cod-liver oil, iodides and arsenic will bring about a betterment. Aggravation may soon follow as an immediate result of any such medication in the subacute form spoken of.

That class of little patients have inherited a gastro-intestinal taint; they are not rachitic, scrofulous or tuberculous children; they are dyspeptics from birth, and they are raised only with the greatest care and difficulty, where and while other chaps grow well on everything.

It is therefore evident that nearly the entire management of these cases of bronchitis is condensed and contained in the vital question of feeding. For infants, medication is limited to antiseptics of the mouth (boric acid), stomach and intestines (calomel and enteroclysis, with boracic solutions) and antiseptics of the bronchi, as Robin says, by vomiting (ipecac, hot water and salt). I feed babies from woman's breast; if the mother has no milk I myself help in getting a nurse, one must be found by all means, of any nationality or race. If the babe unfortunately refuses the breast I think of using nothing else but some animal's milk. Next to the nurse come the cow, the goat and the mare or ass. Of course, in either case I see that the woman or the beast be in excellent condition. Even the best milk, the purest from the breast or from the feeding bottle, will cause indigestion, particularly in a weakened digestive tract, if given

without judgment. When using the bottle I dilute the milk according to each individual case. There is no fixed rule that will work in practice. I try patiently. My rule is to be wise enough to order the strictest care as to cleanliness, hours of feeding and quantity, all varying as to individual conditions, tested and patiently observed. Careful bathing and fresh air for the baby is absolutely necessary, in spite of the inevitable remarks of some one around the place who may think a child with a bad cold and a fever should be kept indoors and never dipped in water. As for children, in such cases, medication, aside from antisepsis as directed for infants, comprises the intelligent use of such reliable remedies as strychnin and cinchona; but here too, hygienic measures are capital. Take them away from school and order them to live in the open air, out of town preferably, but if too poor, in the parks, squares and on the levees about town. They must be watched carefully in order that they play moderately, avoiding over-exertion, and also in order that their nickels purchase no such delicacies as hot pies, ginger cakes, bâtons z'amande, prâlines coco, niggerheads, Uncle Sams, Cracker Jacks and his many brothers. A good cup of pure raw milk, every two hours, will do well in some cases, or every four hours in others, a small meal of wholesome food well prepared and well cooked by the careful hands of a devoted and sensible mother, who does not feel her pride hurt by going to the market to purchase wholesome and sound food and going to the stove, cooking *con amor e gusto* for the little ones the food she bought herself.

These young people should be lectured as to the importance of mastication while eating; as regards the drinking part, at meals as well as outside, filtered water is without question better than any kind of claret, beer or liquor.

In short, these cases of bronchitis are generally cured with hygienic measures chiefly, and attention must in particular be given to the alimentary canal.

CONSIDERATIONS ON THE RADICAL CURE OF CHRONIC
EMPYEMA OF THE ANTRUM OF HIGHMORE BY THE
METHOD OF LUC.* †

BY A. W. DE KOALDES, M. D., PROFESSOR ON DISEASES OF THE EAR, NOSE
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In entering upon the consideration of the radical treatment of chronic maxillary sinusitis, we are fully cognizant of the fact that it is a subject to which many have given their attention in late years, and that, although the majority, we dare say, are convinced of the glaring necessity of adopting the radical treatment in certain cases, there are yet too many unwilling to attach to it the importance that it merits, and who prefer to limit themselves to those milder methods which are directed to the simple evacuation of the confined pus and subsequent irrigations of the cavity with detergent and antiseptic solutions. We can not but admit that in many cases of not too long a duration, these simple measures prove happily effective, and by their application, as a test treatment in all cases, we may be spared the necessity, in many, of undertaking any harsher lines of treatment.

No one, however, who in the course of his clinical experience has had occasion to observe the laggardly course of a certain class of these cases of chronic antral suppuration, and who has seen with what discouraging obstinacy the suppurative process continues despite the most rigidly conservative treatment, can justly hesitate as to the indications here for the adoption of more stringent measures. As for ourselves, the closer we scrutinize the great number of cases that have been treated in our clinic of the Eye, Ear, Nose and Throat Hospital, the more we become convinced of the unsatisfactory results obtained in a majority of cases by Cooper's method. To-day less than ever have we to change the opinion expressed by one of us several years ago at a meeting of the American Laryngological Association in favor

* Read before the Louisiana State Medical Society, at its Annual Meeting in May, 1898.

† It must be stated here, however, as a matter of priority, that this operation was fully described and advocated several years ago by Geo. W. Caldwell (see *N. Y. Medical Journal*, November 4, 1893). This fact evidently escaped the notice of our friend Dr. H. Luc, whose sense of justice and professional integrity are unassailable.

of the more radical operation. A more general resort to Desault's operation has certainly enlightened the profession, and shown the futility of the alveolar or intra-nasal procedures, in obstinate cases. A study of the pathology of such cases, and of the intimate anatomical and pathological relations existing between the antrum of Highmore, the nasal and oral cavities and the nasal accessory cavities, as is so well demonstrated to us in the excellent works of Zuckerkandl, Hajek, Kaufman and others, further serve to strengthen our conviction of the frequently utter impotence of conservative measures in their treatment.

In empyema of long duration where the mucous lining of the antrum has become transformed from a thin, closely applied membrane into a thickened pus-secreting mass of tissue undergoing polypoid and cystic degeneration, it is scarcely plausible to suppose that simple irrigation of the cavity will bring about a permanent cure of the affection.

While it is the rule for this treatment to be followed by an amelioration of symptoms, and a considerable decrease, perhaps, in the quantity of discharge, there remains almost invariably a certain amount of muco-purulent secretion to be washed out every day, and the unfortunate patient must become a slave to his own treatment, or a burden on the hands of his physician. A cessation of the irrigation for a few days will allow a reaccumulation of pus in the cavity, and a return practically to its former condition.

The protractedness, and even the incurability, of these cases under such mild procedures is never better demonstrated than when a subsequent radical operation allows large access to the cavity, into which the eye, the finger and the instrument can have freedom of access. Many operators have not only found more advanced and more extensive degenerative changes of the mucosa than anticipated, but, also, have been greatly surprised at lesions of the bony walls, at unsuspected abnormal prolongations of the antrum, at inflamed diverticula, pouches or even almost separate compartments, the importance of which must be remembered in connection with the retention of inflammatory products and thick exudations.

Foreign bodies even have, at times, been unsuspectedly found. We recall the case of a patient who, refusing surgical intervention through the canine fossa, had suffered from a chronic sup-

uration of the antrum, during which he had been a victim of attacks of erysipelas and of recurrent suppurative processes by the introduction into the antrum of foreign substances (strip of iodoform gauze, cotton plug and wooden peg) through an alveolar opening made twenty-five years ago.

In such cases it is imperatively demanded that we open freely the diseased cavity and remove any vestige of its degenerated mucosa, as the only means at our disposal at the present day by which we may hope for a rapid and complete cessation of the discharge.

In thus declaring ourselves as advocating radical treatment, we shall describe in detail the technic of an operative procedure by which, in our opinion, we are enabled to gain free access to the seat of the disease in the most rational and effectual manner, and, at the same time, provide for the future drainage and closure of the cavity. One of us was fortunate enough to observe this method, employed by its author, Dr. Luc, of Paris, and later, its further adoption in the excellent Laryngological Clinic of Moure, of Bordeaux, and having had occasion to become familiar with the operative technic and to make some comparison between the results obtained thereby and those of the older radical operation, we are convinced that it offers several points of advantage, and we have therefore become exponents of its merits.

The operation in question consists in making a large opening through the anterior wall of the antrum, and at the level of the canine fossa, thoroughly curetting and cauterizing the cavity of the sinus, establishing then a communication into the inferior meatus of the nose for the insertion of a drainage tube, and finally closing the wound in the canine fossa. In carrying out the technic of this procedure the author follows closely the principle that he applies in his treatment of frontal sinus empyema, of which one of us has had occasion recently to give a descriptive sketch.*

Dr. Luc has, of course, made such modifications as the difference in the anatomical situation demanded.

In finer detail, the successive steps of the operation are as follows: The patient anesthetized, the upper lip is everted and retracted as much as possible, by the aid of a proper instrument,

* See JOURNAL, February, 1898.

and the fingers of an assistant, so that the alveolar region of the affected side is freely exposed. In some cases it has been found convenient, where the esthetic effect was not to be considered, to make an incision into the commissure of the lips to gain freer access to the alveolar region, but this procedure, while evidently offering an advantage for carrying out the succeeding steps of the operation, is not absolutely necessary and should be avoided as a rule, as causing disfiguration and additional traumatism. The incision through the mucosa is next made, beginning anteriorly about 15 mm. above the neck of the canine tooth and extending backward at the same level to the maxillary tuberosity. Care must be taken not to bring the incision too near the border of the gum, as the retraction of the mucosa will render the after suturing very difficult.

The periosteum is next incised, detached and retracted upward as high as the infra-orbital canal and the bony anterior wall of the antrum lies bare before us exposed in its longest extent.

The bone is then attacked in this situation at a point well above the roots of the teeth, a crown trephine, an electric drill, or the chisel and mallet being usually employed for the purpose. As the bony wall is thin, especially in aged subjects, no difficulty is experienced in penetrating into the cavity.

An opening well made, large enough to admit of their employment, the cutting forceps are brought into use and the greater part of the anterior wall resected. Before going further it is now best to check the hemorrhage, which may be momentarily quite free, and examine the interior of the antrum under reflected light to ascertain its extent and form and the condition of its mucous lining. This will guide us in performing systematically and thoroughly the next step of the operation, which consists in curetting away every trace of diseased tissue to be found. Great stress is laid upon the importance of this process, and as an additional assurance that all the pyogenic tissues will be destroyed, an application of a strong solution of chloride of zinc (20 per cent.) is made to the interior of the cavity. This completes the first half of the operation and our attention must be turned now toward the establishment of an avenue of drainage by way of the nasal fossa. To accomplish this the internal wall is first closely inspected, and its relation with the nasal fossa ascertained; a point is then selected in

the most anterior part, corresponding to the level of the inferior meatus, just above the floor of the nasal fossa, and with the same instruments used for the perforation of the anterior wall of the antrum, an opening is made through the thin osseous plate separating the antral from the nasal cavity. The perforation thus made, which should not exceed 1 *cm.* in diameter, serves for the passage of a small soft rubber drainage tube with an expanded funnel shape extremity, such as is used for the drainage of the frontal sinus after the radical Ogston-Luc operation. For the introduction of this tube a long curved probe with a fenestrated extremity is introduced through the antrum into the nasal fossa and out through the anterior naris.

A strong thread is attached and the probe withdrawn, leaving it in place. It is required now, to fasten the small extremity of the tube to the end of the thread which passes out through opening in the canine region and draw it in, through the antrum and out at the nostril, until the larger extremity is arrested, within the cavity at the orifice of the artificial nasal communication.

The tube is cut off short at the nostril, and remains firmly in place, without other attachment, unless removed by force. When it becomes necessary, it can be extracted through the nose by simply pulling on the small end. It may not be amiss to remark here, that some difficulty often attends the performance of this part of the operation; that is to say, the establishment of this drainage way into the nose.

When, as is not rarely the case, the hemorrhagic oozing into the cavity takes place so persistently and rapidly that the operator can not make a close examination of the region, it is not easy to select the proper point for making the puncture. Through a mistake in this direction we may go too low, and break through into the oral cavity, or a little too high, and fall upon the base of the inferior turbinated body. It is important, therefore, not only to be able to illuminate the cavity well, and work upon a clear operative field, but to ascertain as near as possible the particular form and relations of the antrum upon which we are operating. Some valuable points of information in this regard may be obtained, by noting in turn the general size and form of the superior maxilla as seen externally, the width and depth of the palatal vault, the thickness and promi-

nence of the alveolar process and the level and breadth of the floor of the nasal fossa. It is known how greatly the shape and extent of the antrum of Highmore varies in different subjects, and also, how, sometimes, they differ upon the two sides in the same subject; we can be guided, therefore, by no fixed rule, but a close inspection of the parts, with which it is in relation, will afford us a fairly good idea of its size and form.

To avoid any complication or annoyance, a modification has been recently suggested, by which it was proposed to perform a preliminary operation upon the patient several days before the radical operation, and resecting a portion of the inferior turbinate, and making the drainage opening through the nasal fossa. This could be done under cocain anesthesia and with little difficulty, and under favorable circumstances could be done with advantage. It seems scarcely justifiable, however, to subject the patient to two operations, when, if necessary, the opening may be made by way of the nasal fossa, at the same time that the antrum is curetted through the opening in the canine fossa. If when the antrum is opened it is found impracticable to attempt the perforation of the nasal wall from within, then it is time to make the attempt through the nasal cavity.

Having succeeded in getting the drain in position, we proceed to finish the operation by closing the soft parts over the breach made in the anterior wall. All hemorrhage is checked and a small quantity of iodoform powder insufflated as an antiseptic precaution, and with the aid of a Hagedorn needle or a simple curved needle managed with a needle holder the gingival wound is neatly sutured with catgut. It is important that the parts should be brought well into apposition, and the wound firmly closed.

With this end in view, we might remember the suggestion of Lermoyez to use a separate line of sutures for the periosteum and for the mucosa.

Following the operation nothing further is done until the expiration of four or five days, when the wound will have healed and detergent or antiseptic injection may be practised with safety. Any one of the antiseptic solutions, such as boric acid or formol (1 to 1000) are employed, to be injected very gently through the drainage tube to favor the expulsion of any post-operative secretions or blood clots. The tube is left in

place from twelve to twenty days, following indications, and is then extracted through the anterior naris and the daily injections are continued as before. Luc suggests the use of an ordinary Eustachian catheter for practising injections subsequent to the removal of the tube. The instrument is well adapted to the purpose and can easily be introduced into the orifice of the artificial opening beneath the inferior turbinate, which can usually be plainly seen by anterior rhinoscopic examination. Even when the orifice is not visible the point of the catheter finds its way into the sinus. It was considered necessary, in most of the cases observed, to continue injections for five or six weeks after the operation, and it was the rule for considerable muco-purulent discharge to take place after several days. This occurrence, however, is not of significance and should cause no apprehension as to the final result. Its gradual subsidence marks the progressive improvement that leads usually in the course of a few weeks to a permanent cessation of suppuration. The author claims among the chief advantages of this method over the older operations through the canine fossa, first, that it is more thorough, and second, that by the closure of the gingival wound, the constant infection of the cavity from the mouth is avoided, at the same time the patient suffers no inconvenience in eating, and, as he expresses it, is not condemned, as by the older methods, to eat his daily food "*à la sauce iodoformée.*"

While these in themselves are points of advantage of no mean importance, the clinical results offer still weightier evidence of its greater efficiency, and in view of the generally unsatisfactory behavior of the cases treated by the ordinary methods in vogue, we do not hesitate to recommend its adoption in all cases which evince any disposition to tenaciously resist our efforts at treatment upon milder lines.

We must remember, however, that notwithstanding the so far brilliant successes of this method, as compared with those of other older methods, cases must be met that may prove obstinate or even rebellious to a single intervention. One can well imagine, in fact, a very extensive degeneration of the antral mucosa which would require its complete removal. In such an instance, it is to be feared that the epithelium, owing to its limited line of origin, will be slow of progress, consequently the

granulations may become exuberant, and the cure will be very difficult, as normal cicatrization takes place only when the epithelial and granulation layers develop *pari passu* without allowing the formation of "proud flesh."

The difficulty has certainly been in our experience one of the drawbacks to Desault's method, which has led, as we all know, to many secondary interventions.

We are asking ourselves whether in these cases, of very extensive removal of diseased antral mucosa, the procedure of Dr. Luc will effectively overcome this danger.

It is certainly to meet this objection that Bonninghaus has advocated and performed in several instances a modified operation in which he attempts to hasten the growth of the epithelium by giving it a more extended line of origin. This he claims to accomplish by resecting a large part of the inner wall of the cavity and invaginating the nasal mucous membrane, which covered the resected wall.

It might, however, seem that this contention made "a priori" or by analogy with what we know to take place in other buccal methods will not hold good in the method of Luc, owing to the fact that the operated cavity is, by the immediate closure of its anterior resected wall, protected against subsequent infections or irritative processes from the mouth which may under certain circumstances overstimulate the tissues and cause exuberant granulations.

Barring this criticism which may be altogether theoretical, and which after all would only apply to cases of very extensive removal of diseased mucosa, we are convinced that a more general application of Luc's method will prove it to be a most valuable operation in the treatment and cure of cases which too frequently have been the opprobrium of rhinology.

DESTRUCTION OF DIPHThERIA GERMS *locally* has been effected by Professor Loeffler, in twenty seconds, by mopping the affected area with the following:

Carbolic acid.....	2 parts.
Alcohol.....	50 parts.
Turpentine.....	50 parts.

Clinical Reports.

A CASE OF APPENDICITIS WITH SUPPURATION PRESENTING SOME INTERESTING CLINICAL THERAPEUTIC FEATURES.

BY F. W. PARHAM, M. D., PROFESSOR OF GENERAL AND OPERATIVE SURGERY, NEW ORLEANS POLYCLINIC. NEW ORLEANS.

ARTHUR, S., *et. 11*, was seen by me at his home on the morning of September 5. The abdomen was distended like a drum, he was suffering considerably of pain in the abdomen and his bowels had not moved for several days notwithstanding persistent efforts of the attending physician to open them by purgatives. As it is was evident that there was obstruction, he was ordered to the New Orleans Sanitarium for operation. I had him in the operating room at 12 M. When under the anesthetic (chloroform), I introduced the long rectal tube and attempted by colonic injection to overcome the obstruction. After repeated efforts I succeeded in getting a discharge of a large amount of feces attended by the escape of considerable quantity of gas. The tympanites at once disappeared, the abdomen becoming flat. As no tumor could be felt in the appendical region or anywhere else, nothing further was deemed advisable at the time, so the boy was sent to his room and kept under careful observation. The bowels now became very loose, the actions being for the most part watery and gassy. Believing the diarrheal condition was due to the retention of lumpy fecal matter, I administered small and repeated doses of magnesium phosphate. In spite of the fact that he took for the first few days only small quantities of peptonized milk and panopeptone, the actions showed much fecal discharge, frequently lumpy in character. There was so much tenesmus and pain in the right iliac region that opiates had to be given, at first codein, and afterward morphia. This pain in the right iliac region, evidently now connected with an inflamed appendix, got steadily worse in spite of the looseness of the bowels. On the fourth day a distinct induration could be made out just below McBurney's point, which was very tender on pressure.

On the night of the seventh day he was doing badly. He had suffered very much all day from pain in the lower part of the abdomen, and had been unable to pass his urine, necessitating the use of the catheter. The tympanites had again developed, and the area of induration had materially extended. There was now little doubt that we had to deal with an appendicitis with grave infection of the whole iliac fossa, if not, indeed, of the peritoneal cavity. I gave orders to have him ready for operation on the next morning, unless urgent symptoms demanded interference during the night.

The Operation.—With the assistance of my friend, Dr. F. A. Larue—one of the nurses administering the chloroform—I began the operation about 12 o'clock the next day, just seven days after his admission. The tumefaction occupied the whole of the iliac region, and could be traced as far internally as the rectus muscle and was finally lost under the edge of this muscle. An oblique incision was made, beginning over the edge of the rectus and running upward and parallel to Poupart's ligament and about two inches from the a. s. p. at its nearest point. Working through the abdominal wall I soon reached a small cavity, from which, however, came only a few drops of pus. Finding nothing more I prolonged the incision upward, opening the general peritoneal cavity, which appeared normal at this point. I now went back to the original wound and made diligent search for the appendix, but failed to find it. I made another incision nearer the a. s. p., hoping to get at it from behind, but failing, closed the wound with sutures. Feeling sure that I had not gotten to bottom of the trouble, I went more boldly into the wound again. Presently pus began to ooze up from the bottom of the wound. When pressure was made on the opposite side of the abdomen the pus came from the incision in such quantity that I thought it came from the general cavity. So satisfied of this was I that I made an incision on the other side of the abdomen in semilunar line. A few coils of intestines were pulled out and examined, but no signs of inflammatory trouble could be discovered. While Dr. Larue was closing this incision I went back to the original wound and resumed the search for the source of the pus, which on the slightest pressure continued to flow. I was soon rewarded by finding an opening at the bottom of this cavity, through which I pushed my finger

into the pelvic cavity. The pelvis seemed filled with pus, fully three-quarters of a pint or more pouring out. I washed this out with saline solution, and, having thoroughly cleansed the whole wound and having shut off the general cavity with gauze, I proceeded systematically to search for the appendix. It was finally found with its tip just peeping over into the pelvic cavity. It was with some difficulty separated from the surrounding parts and cut away from the cecum by taking away a piece of that viscus along with the appendix. The wound in the cecum was closed with Lembert sutures, and the cecum dropped back into the abdominal cavity. The irrigator was again used thoroughly and the lower part of the cavity packed with gauze. Fearing the risk of septic contamination had not been surely done away with by the irrigation, I made an incision behind, near the vertebral column, and ran a drainage tube through the cavity, just below the liver. A few sutures were passed to partially close the upper half of the anterior wound, and the wound in the left semilunar line having been closed with collodion, the dressing was applied. In the meantime, a vein in the arm having been exposed, intravenous infusion was begun. The condition had become alarming, and fatal collapse seemed only averted by the rapid introduction of the solution. Two pints were thrown in at a temperature of 110 to 115 degrees. The operation had lasted about three hours, and the shock was necessarily very severe, but under the influence of the saline infusion, in conjunction with strychnin and digitalis, his pulse was brought back, and he left the operating room in a precarious but by no means hopeless condition. About an hour after getting back to his room, the pulse however suddenly failed again, running up to 160. The canula being still in, I got Dr. Larue to infuse again. Two pints had to be thrown in before the pulse decidedly improved. The temperature of the solution was the same as before. Improvement from now on was progressive. The pelvic wound was kept packed with gauze for a few days, but as there was some difficulty in efficiently placing it, I later introduced a good-sized drainage tube, which was left in place until the discharge was very scant, when gauze was again resorted to. His convalescence has been uneventful. It is now nearly two months after the operation. All that remains of the immense operative wounds is a little redundant granulation tissue and this is rapidly disappearing

under the use of nitrate of silver. So far there is no tendency to development of ventral hernia. This, of course may come later. The case is reported to show :

(1) The danger of delay in appendicitis. I believe now that if this patient had been operated on when the appendix was first suspected to be at the bottom of the trouble, or later, when the development of a tumor at the site of the appendix made the diagnosis certain, his life would not have been so long in jeopardy and his convalescence from the operation would have been very much more rapid.

(2) That no case not actually *in articulo mortis* should be abandoned as hopeless, but should be given the benefit of an operative procedure which should be as thorough as the condition of the patient will justify.

(3) That the use of salt solution injected hot into a vein will save a patient from death on the table, and that its repetition after operation is urgently demanded whenever the state of shock again supervenes, even several days after operation.

GUNSHOT WOUND OF ABDOMEN—NINE PERFORATIONS OF SMALL INTESTINE, ONE OF RECTUM, THREE OF BLADDER—LAPAROTOMY—RECOVERY.

BY J. M. BATCHELOR, M. D., ASSISTANT HOUSE SURGEON, CHARITY HOSPITAL;
CLINICAL INSTRUCTOR, NEW ORLEANS POLYCLINIC, NEW ORLEANS.

On June 24, 1898, patient, J. L., was brought to the hospital by the ambulance, about thirty-five minutes after receiving a gunshot wound of the abdomen. The patient, boy, aged nine years, was submitted to the writer for examination and treatment. Inspection of patient showed wound of entrance of single bullet, 32 calibre, about one-half inch to left of centre of anus; wound of exit in abdominal wall, one inch to right of umbilicus, the omentum protruding and lying upon the surface of the abdomen.

Under chloroform anesthesia, abdominal section was done. The bullet was found to have passed through the rectum and neck of bladder, striking the pubis; it was then deflected upward and forward, slitting the anterior wall of bladder, passing

into the bladder and out again near the summit, perforating the small intestine nine times in progress outward.

The intestinal wounds were rapidly closed by the Lembert suture with as little manipulation as possible. Only moderate fecal extravasation took place. The wound in the posterior wall of the bladder was tightly closed with small silk sutures, as was also the wound in anterior wall. The latter wound, because of its low situation and the puerile pelvis, was sutured with difficulty. The wounds of rectum and of neck of bladder were entirely inaccessible, and were therefore left open. The writer then decided, in order to obviate infection of general peritoneal cavity from these unsutured lesions, to close incision of operation and fix the bladder to abdominal wall at inferior angle of abdominal incision; this was done, completely closing the peritoneal cavity against infection from the two wounds mentioned. A small perforated glass drainage tube was left in the supra-pubic wound in front and to the right of the bladder, its lower extremity resting against the rectum. Before closing the cavity the protruding omentum was cleansed with warm sterile normal salt solution and returned intact. Thorough irrigation of the peritoneal cavity was done, the normal salt solution being used.

Patient left the table in good condition. The supra-pubic drainage tube was exhausted every two hours for ten days, and was flushed with 10 per cent. hydrogen peroxide solution twice daily. This drain afforded escape to probably one-half the urine, the remainder passing through the vesico-rectal fistula and out by the anus. Some urine was voided per urethram during the first forty-eight hours, and afterward at irregular intervals—sometimes once in thirty-six hours, again seventy-two hours elapsing. Gradually, however, the drainage tube was withdrawn, and this wound, together with the vesico-rectal fistula, closed on the thirtieth day, the entire urinary secretion being voided per urethram.

Nourishment was administered regularly at two-hour intervals after first twelve hours succeeding operation. Bowels moved spontaneously at end of twelve hours. Nausea was never a symptom.

This case has seemed to present unique features which warranted its report.

The kindly healing of the two sutured wounds in the bladder, the number of intestinal wounds sutured and their prompt union; the returning intact of two inches of omentum, which had been soiled; and, finally, the complete repair and closure of the vesico-rectal fistula, have all seemed worthy of observation.

The patient was discharged, cured, July 27, 1898.

Clinical Lecture.

THE PECULIARITIES OF CROUPOUS PNEUMONIA OCCURRING IN CHILDREN.

ABSTRACT OF LECTURE, BY JAMES C. WILSON, M. D., PROFESSOR OF MEDICINE, JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

The distinctive characteristics of pneumonia occurring in children are so well illustrated in a boy recently admitted to the Pennsylvania Hospital that his story is well worth presenting to your attention.

H. J., fifteen years of age, a native of Russia, was admitted to the hospital on October 7 under curious circumstances. There was nothing in his family or previous history which had any bearing on his condition as noted on admission. He came to us with the report that up to the present time he had always been perfectly well. He had been in the habit of going to church frequently without his breakfast; on the last occasion, that of a national holiday, he went as usual, and while in church fell unconscious on the floor. He states that he remembers nothing from the time of his visit to the church until he woke up and found himself in a hospital. He never was a sufferer from convulsions, never lost consciousness before, and had no previous history of nervous trouble.

On examination in the receiving ward of the hospital he was found to be in a state of collapse; his extremities were cold, his pulse was rapid, running 150 to the minute, his respirations were 40, while his temperature was only 98.2 deg. His tongue was coated and his upper lip was cut as a result of his fall; his

pupils were equal in size and responded to light. The examination of his lungs, abdomen and urine was negative, excepting that the second heart sound was accentuated. His breath smelled heavily of whiskey, but it is understood that this was given him after his attack in an attempt to revive him.

On the evening of his admission he had a temperature of 102 deg., with a hot tense abdomen; there were no spots however and no enlargement of the liver or spleen. There were crepitant râles over the left base of his lung, and his pulse was dicrotic. His temperature ranged from 104 deg. to nearly normal; he was sponged, and the case was considered provisionally as being probably one of commencing enteric fever. There was very little cough in the course of the case; scarcely any pain and only a faint history of sputa, occasionally somewhat rusty in character. A diagnosis was subsequently made provisionally of croupous pneumonia, which was confirmed by the appearance of a rapid crisis on the 10th of October, three days after admission. At 9:30 P. M. the boy had a temperature of 103 deg.; by 7:30 on the following morning the temperature had fallen to $96\frac{2}{3}$ deg., a fall of over 6 deg. in ten hours.

There are several points of interest in this case, as a type of croupous pneumonia occurring in children, for, while this lad is 15 years of age, he is young for his years and is physiologically only a child.

1. *In early life there is frequently no history of a chill* preceding an attack of croupous pneumonia. In this case we have simply the story that the boy fell down unconscious. In the first place, a chill in the infectious diseases is nothing more than a nervous perturbation, due to the reaction of the nervous system to some toxic principle. In early life there is more apt to be a convulsion from the same cause, especially in children that are at all neurotic in tendency. The brunt of the attack at first seems to be upon the heart. We noticed in this case that on admission the pulse was 150, while there was but little disturbance of the temperature. In markedly neurotic cases there may be at the outset an acute mania, a mad delirium, which may even be mistaken for acute meningitis.

2. *The insignificance of the cough.* In this case there was almost no cough and only the scantiest expectoration.

3. *The short duration of the attack.* In this case defervescence was well established on the third day of the disease; I have noticed a tendency of this disease to terminate on the odd day, the third, fifth, seventh day. This disease is a short one in its average progress, rarely lasting beyond the seventh to tenth day; if a case persists beyond this period it is well to examine well for the possibility of the presence of something which is prolonging the condition outside of the pneumonia. In this case the temperature shot up after the first fall to above 100, from which it has again fallen. Some authorities would call the primary fall a pseudo-crisis, and the latter fall a terminal crisis; but I believe this is simply splitting hairs in the use of terms.

4. *The treatment of these cases.* Whenever the temperature of this patient got above 102 degrees he was sponged every two hours. On admission he was given a large dose of calomel on the theory that the case was probably one of enteric fever, in which I believe, as in all acute infectious processes, active cathartics at the outset is most beneficial. It would also be of service in an attack of pneumonia, in clearing the system, "house-cleaning," as it were, getting ready for the battle which is to follow. The ice-bag was also used in this case when the trouble was localized. Dover's powders in two-grain doses were given every two to four hours, watching their effect. After the attack the boy is taking the syrup of the iodide of iron for his general debilitated condition. It is probable, however, if we accept the modern theories in regard to pneumonias, that the boy would have done about as well without any especial treatment beyond careful nursing.

The next case is another boy suffering with croupous pneumonia, in whom the symptoms are different and present the signs of this disease as a lad approaches maturity.

A bootblack, thirteen years of age, but far more matured than the previous case, was admitted the latter part of September. His family history is unknown. He had malaria about five years ago and has lost an eye as the result of an injury. He had been sick at the time of admission for five days, the sickness beginning with a very severe cold; his symptoms were pain in the side, a cough without expectoration, shortness of breath, but

no other symptoms relating to the respiratory or alimentary tract.

Upon admission his tongue was coated with a yellowish fur and his face was slightly flushed; upon examination the heart was found to be all right, but upon percussion an area of dullness was discovered over the right lower lobe of the lung with increased vocal fremitus and resonance and restricted movement on the right side. The liver, spleen and stomach showed no enlargement or tenderness. The urine was yellowish in color, acid in reaction, with a specific gravity of 1.012.

On the 29th of September he had a pseudo-crisis, of which this is the history: On the 28th, the temperature was ranging between 101 and 103; on the 29th it fell below normal, then rose quickly to 102 and a fraction and then that night it fell again to remain down for some time; on the 30th it rose again; on the 31st the urine showed a specific gravity of 1.020, with no sugar and no albumin; on the 2nd of October the temperature still remained normal, and has continued normal from that time on. The fremitus has disappeared, but the dullness and resonance have not entirely disappeared.

This is a good history of croupous pneumonia, in stout lads of this age, and the physical signs and characteristic symptoms are very well marked. The treatment was simple indeed, and consisted of sponging the patient off to keep down the fever, the administration of three grains of ammonium carbonate (though I will not take the responsibility for its use), every third hour, and of Dover's powder, one grain every third hour, calomel occasionally, and on other occasions he was purged by the administration of small doses of the sulphate of magnesia. Now he is taking small doses of the tincture of the chloride of iron.

There is another point illustrated here, and that is the varying duration of croupous pneumonia. The final fall in temperature took place on the seventh day of the attack, which is a very common day for it to take place. In the majority of cases, as I have found it, it occurs on the odd days, but of course there are exceptions to this rule. I am going to get him to sit up, and we will see if he has any persistent dullness. By percussion, I find that there is still a small area and dullness on the right side. This illustrates another point as to the induration of the lung in this disease. You have an exudate poured out little by little

into the vesicular structure of the lung, and this undergoes solid coagulation. Presently the exudate undergoes softening as the result of some chemical or vital change within its substance. Then you have a certain amount of air entering the vesicular structure. This causes the fremitus again.

Ultimately, in favorable cases, there is a complete resolution and restitution to the original sound condition, but frequently the dullness remains for a long time. There is always a certain amount of infiltration around the bronchial tubes, which does not undergo reabsorption with the same rapidity as the soft exudate in the vesicular structure, and you will find upon percussion that you have impaired resonance. Sometimes it is a week, but more times it is a month or two, before the lung clears up.

Communications.

POSTPONEMENT OF THE THIRD PAN-AMERICAN MEDICAL CONGRESS.

INTERNATIONAL EXECUTIVE COMMISSION OF THE
 PAN-AMERICAN MEDICAL CONGRESS. }
 OFFICE OF THE SECRETARY, CINCINNATI, Nov. 5, 1898. }

To the Editors New Orleans Medical Journal—I have the honor to announce that in April, 1898, I received from Dr. José Manuel de los Rios, Chairman of the Committee on Organization of the IIIrd Pan-American Medical Congress, a request that, in consequence of the then existing rebellion in Venezuela, no definite arrangements be made at that time relative to the meeting of the Congress previously appointed to be held in Caracas, in December, 1899.

The following communication relative to the same subject is just at hand.

CARACAS, September 25, 1898.

Dr. Charles A. L. Reed, Secretary of the International Executive Commission, Cincinnati, Ohio:

DEAR SIR—After having sent my communication dated April last, I find it to be my duty to notify you that, although the considerations pointed out in it have already ended, our country

has been scourged by small-pox which has taken up all our physicians' activities and time, depriving them of going into scientific works. And, as that state of mind of our people and government after such calamities as war and epidemic would greatly interfere with the good success of our next meeting, I beg leave to tell you, in order you will convey it to the International Executive Committee, that our government and this commission would be grateful to have the meeting which was to take place in Caracas, in December, 1899, adjourned for one year later. I am, dear Doctor,

Yours respectfully,

THE PRESIDENT,

[Signed]

DR. JOSE MANUEL DE LOS RIOS.

In accordance with the request of the Government of Venezuela, and of the Committee on Organization, the IIIrd Pan American Medical Congress is hereby postponed to meet in Caracas, in December, 1900.

For the International Executive Commission,

CHARLES A. L. REED,

Secretary.

THE LIBEL SUIT OF WILLIAM SMITH, OSTEOPATHIST.

To the Editors New Orleans Medical and Surgical Journal—Dr. William Smith, osteopathist, has a grievance against *The Medical Age*, and demands \$25,000 damages.

The ground of his plaint is an editorial, reflecting discredit on Dr. Smith, on the *Journal of Osteopathy*, and on osteopaths in general. The subject is set forth in *The Medical Age* of September 26, 1898, and a reprint of this editorial will be sent on application.

I need hardly assure any one familiar with the past record of the *Age*, that William Smith, M. D., D. O., has a large contract on his hands. His quest for damages is likely to prove futile, and his armor will need patching if it is to withstand the hard legal knocks that will be showered and battered upon it before he touches one dollar of the *Age's* money.

Pray do not fancy, however, that William Smith and osteopathy are to be lightly dismissed with the contempt that they merit. There is no use in blinking the fact that the lack of efficient organization amongst reputable medical men has per-

mitted the whole brood of quacks and charlatans to flourish apace. By the strangest irony of fate, osteopathy, in some respects the most grotesque of medical aberrations, has well illustrated Lecky's dictum that a small but cohesive and determined minority can exert a political influence wholly disproportioned to its real weight and numbers.

In Kentucky, thanks to the resolute leadership of a handful of physicians, ably guided by Dr. Matthews, the osteopaths have been driven from the State. Not so, however, in Missouri or—I blush to say it—in Michigan, Vermont, North Dakota, South Dakota, Illinois, Colorado and North Carolina (*American Medico-Surgical Bulletin*). In these more lax and indulgent communities osteopathy boasts its numerous followers, its "school of instruction," its periodicals of propaganda, its political influence in legislation, its shameful immunity from the penalties by which society properly seeks to rid itself of quackish parasites.

Emboldened by its success, osteopathy now enters the courts and offers battle to a medical journal which disputes its respectability. The challenge is accepted. In the interest of science, in defence of ethical and honorable medicine, in defiance of a quackery that constitutes a deep disgrace to any enlightened age and a stain on the communities which give it shelter, the *Age* proposes to maintain its position and to continue its denunciations of the ignorant pretenders who fatten on the sufferings of the credulous and confiding.

Having put my hand to the plow in this uncompromising fight with quackery, I beg leave to assure you that there will be no turning back.

I need not point out the bearings this contest must have on the interests of legitimate medicine, and I earnestly hope that the *Age* may count on the moral support and commendation of the entire profession:

Faithfully yours,

WILLIAM M. WARREN,
Publisher of the Medical Age.

PERSONAL.

LAFAYETTE, November 7, 1898.

Editors New Orleans Medical and Surgical Journal—In circular letters issued by Dr. F. F. Young, of Abbeville, La., containing

the advertisement of his sanitarium, my name is used as one of his references. I desire to state that such is without my knowledge or authorization.

Very respectfully,

J. D. TRAHAN, M. D.

NEW ORLEANS, November 23, 1898.

To the Editors New Orleans Medical and Surgical Journal:

GENTLEMEN—Will you please state in the forthcoming number of the JOURNAL that the use of my name by Dr. F. F. Young, in his recent circular advertisement, was totally unauthorized.

Yours truly,

JOHN CALLAN, M. D.

THE VIVISECTION BILL

WASHINGTON, D. C., November 18, 1898.

Editors New Orleans Medical and Surgical Journal—At a recent meeting of the Joint Committee of Scientific Societies of this city on Vivisection, the following resolution was adopted:

“*Resolved*, That the secretary be authorized to call the attention of the prominent medical and scientific journals of the country to the importance of the meeting of the American Humane Society to be held in this city December proximo, and to request that editorial notice be taken of the danger that the influence likely to be exerted at that meeting may cause the vivisection bill now pending in the Senate to be called up and passed.”

I was also directed to ask that you will advise your readers to write to their respective Senators and Representatives in regard to the matter.

Yours truly,

D. J. LAMB, *Secretary*.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

PEACE, UNION, STRENGTH.

There is no absence of peace in the ranks of the medical profession of New Orleans and Louisiana. There are probably fewer bickerings and factional difficulties among our doctors than among those of any other State or large city. Yet union, which should be concomitant with peace, is wofully lacking. We mean that union which leads to organization and produces strength and purpose. The brains, education and working capacity of the individual physicians are such that collectively they should wield an immense influence for the public good and be amply able to protect themselves against infringements on their field of labor. Not being organized, they do neither, as is attested by the results of their efforts before legislative bodies and by the numerous impositions with which the appreciative public burdens them.

This lack of organization is due in large part to short-sightedness and selfishness. The older men in the profession, those who have achieved distinction and the attendant recompense, seem frequently to care little what may befall their brethren. What time have they to attend meetings or labor for the common good—have they not what they want? The younger men, those who are contesting for a place, with such an example before them, seize all the opportunities which tempt them by a temporary benefit, lose sight of the fact that they may be harming the best interests of the profession and that they are damaging the prospects for their own future.

Get together, friends, and work some for the common good. Those who are independent will feel all the better for it and the struggling ones will gather new strength and energy.

The season of "peace on earth to men of good will" is an excuse for our sermon and its text. This is our way this year, in a serious vein, of wishing our readers a Merry Christmas.

ANTI-VACCINATION IN ENGLAND.

In response to the demand of the people the vaccination laws of England have been so modified as to have emasculated them.

The same opposition to vaccination exists to a great extent in this country, and the opposition has at some points become organized.

There can be no doubt of the fact that vaccination has practically checked the epidemics of small-pox, formerly existing, and that it must always be a means of preventing its spread in every urban or other community.

That something has been wrong is evident, else there would have been no such outcry and no such opposition to an established measure of public protection.

The accidents incident to vaccination have multiplied themselves of recent years, so that almost any sort of a complication is expected.

In the face of all this, no proper investigation has been made of the necessary remedial measures.

Whether the vaccine itself is at fault, or the method employed in making the inoculation, or the individual idiosyncrasy of the vaccinated person, these are questions for consideration.

The customary carelessness on the part of the public vaccinators is a large element in the resultant accidents, while the lack of appreciation of the necessary cleanliness in the operation of vaccination is quite easily and properly laid at the door of the average practitioner.

Unless the theory of vaccination has been revolutionized, some attempt at the systematic study of the elements at fault should be made, so that layman and doctor alike may know that it is the method and not the principle which is faulty.

Medical News Items.

THE BOARD OF HEALTH OF THE CITY OF NEW ORLEANS has issued a circular, addressed particularly to the physicians of the city, calling attention to the urgent need of educating the people to adopt measures to prevent a recurrence of the fever epidemic next year. Among other suggestions, we note the following:

“It is a well-known fact that sunlight and oxygen destroy germs of disease. In the case of yellow fever, cold is a potent factor in such destruction.

“Let us then give Nature a chance, during the present winter, to destroy with her own inexpensive agents any possible remaining vestige of infection left over from the summer.

“Let our houses be thrown open on every cold and clear day as much as is practicable, more especially the bedrooms.

“Let the clothes and bedding, curtains and all woollen, linen and cotton materials be frequently aired and sunned. And most particularly let the clothes worn during the past summer be frequently subjected to the disinfecting influences of cold, fresh air and sunlight.

“Trunks, chests, armoires, closets and bureau drawers should be opened and emptied of their contents during cold and clear weather; and fresh, cold air should be permitted to circulate in the remotest corners of the house among articles which can not be moved to the sunlight.”

THE QUARANTINE CONVENTION CALLED IN MEMPHIS last month resulted in the recommendation to Congress of the passage of a law creating a Bureau of Health in the Treasury Department. The proposed bureau would frame all regulations necessary for the enforcement of all national sanitary laws. It would have charge, consequently, of maritime sanitation, interstate quarantines and other preventive measures during epidemics as well as the decision concerning the time when such quarantines are necessary. The recommendations contemplate also the creation of an Advisory Board, composed of one representative from each State of the Union. All regulations of the bureau would be submitted to the latter board, which would have the power to approve such regulations or not, the regulations to become effective only after their approval; the board would act upon a majority vote.

ANNUAL MEETING OF THE WESTERN OPHTHALMOLOGIC AND OTOLARYNGOLOGIC ASSOCIATION.—The next annual meeting of the Western Ophthalmologic and Oto-Laryngologic Association will be held at New Orleans, February 10 and 11, 1899. These dates have been selected in order to give the visiting members an opportunity of seeing the Mardi Gras Carnival, which takes place on the 13th and 14th of February.

Titles of communications should be sent to Dr. Thomas F. Rumbold, secretary, St. Louis, Mo., or to Dr. W. Scheppegrell, vice president and chairman of the arrangement committee, New Orleans.

The officers of the association are as follows; Dr. J. E. Colburn, Chicago, president; Dr. W. Scheppegrell, New Orleans, first vice president; Dr. C. A. Wood, Chicago, second vice president; Dr. F. M. Rumbold, St. Louis, secretary, and Dr. W. L. Dayton, Lincoln, Neb., treasurer.

TO EXAMINE ACTING ASSISTANT SURGEONS.—An order has been issued by the War Department directing the Surgeon General to convene a board of medical officers to examine acting assistant surgeons now in the service and candidates for appointments.

At the outset of the war and up to the present time appointments have been made by the surgeon general on such other endorsements as the candidates have been able to present. This course was necessary, because of the urgent necessities of the services, and the fact that medical officers were not available for duty upon the boards.

THE SHREVEPORT HOSPITAL BOARD recently accepted the resignation of Dr. T. E. Schumpert. At a meeting held on November 16 they elected Dr. R. H. Gray surgeon in charge, and Dr. J. M. Calloway superintendent and assistant surgeon.

DR. W M PERKINS has lately been elected to the position of resident physician to the New Orleans Sanitarium, vice H. B. Gessner, resigned.

THE JOURNAL CONGRATULATES DR. GEORGE A. KETCHUM upon the celebration of his golden wedding anniversary. Dr. Ketchum has been identified for many years with the Mobile Medical College, of which he is now dean.

NOTWITHSTANDING THE OPENING OF THE TULANE MEDICAL DEPARTMENT having been postponed to November 14 for its preliminary course, and to the 28th for the regular session, the attendance already promises a larger number of students than for some years past.

THE PHILADELPHIA POLYCLINIC, the journal now published by the trustees of the Philadelphia Polyclinic and College for Graduates in Medicine, will discontinue publication by January 1, 1899. Unexpired subscriptions will be completed by the *Philadelphia Medical Journal*.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

HERNIA OF THE BLADDER.—Mr. Carlier, in *Gazette Hebdomadaire de Médecine et de Chirurgie* of September 22, 1898, reports that a man *æt.* 66 detected, fifteen years ago, and after a strain, a tumor in the right groin. This man also noticed that after emptying his bladder he would still urinate by compressing this tumor. At present he has a hernia of the bladder in the right scrotal region, and he can always urinate twice in succession.

Two months ago this man had retention of urine, caused by a urethral calculus removed by incising the meatus.

Mr. Carlier recalls the fact that two years ago he had treated a butcher, *æt.* 63, who also perceived the existence of a tumor in the right groin after an effort. Symptoms of retention caused by a stone appeared, ceasing as soon as the calculus was eliminated. The patient then showed signs of prostatic trouble with calculi formation in the bladder, and probably also in its herniated portion. He succumbed to urinary fever.

Mr. Carlier fears for his patient the formation of other calculi in the hernial pouch and death from urinary fever.

LATENT AND PERFORATING ULCER OF THE DUODENUM.—Mr. Lambert presents a piece of perforated bowel from a man urgently operated on in Mr. Folet's clinic. The patient was suddenly seized at noon the day previous with a terrible pain in the right side. So intense was the pain that the young man fell and had to be carried home. Vomiting then set in, but

toward morning the pain had slightly diminished. For eighteen hours the patient had passed no feces or gas. His features were pale and pinched, the tongue dry and the pulse rapid but full. The abdomen, scarcely distended, is not characteristically hard or board-like. Abdominal palpation is easy and in no point is tumefaction detected. Pain, however, is evoked over the entire abdomen, slightly more severe to the right and diffused. McBurney's point is, however, especially very sensitive. The region of the liver was dull and presented stellate cicatrices caused by leeches which had been applied long ago, or a "strain," about which no details can be ascertained.

Mr. Folet, after examining the patient, decides not to laparotomize but simply to resect the appendix. A quantity of yellowish brown liquid escapes from the wound; the appendix is not perforated. Another incision is then made from the pubis to the ensiform cartilage, and a large quantity of this same fluid gushes out. The bowel is washed and the perforation is searched for. On lifting the hepatic flexure of the colon, Mr. Folet finds on the duodenum a teuticular perforation with indurated borders whence emanate gases. The perforation is sutured and drainage tubes are placed in the pelvis and the abdomen. The operation lasted three hours, and three quarts of artificial serum were injected. Death follows seven hours after the operation, either from infection or from shock. At the autopsy the sutures were found in good condition.

Mr. Carlier recollects having seen the wife of a confrère who suffered from her abdomen. Called upon to examine her, he diagnosed appendicitis from the intense pain over McBurney's point. She was operated on the following day, the appendix being found healthy. But on extending his incision upward he found the gall bladder full of pus and calculi. Cholecystectomy was done. In this case as in Mr. Lambert's case, the characteristic painful spot of appendicitis was misleading, the hepatic zone being the seat of trouble — *Ibid.*, *loc. cit.*

Department of Obstetrics and Gynecology.

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

CYST OF THE URACHUS.—After a general review of the subject of cysts of the urachus and the history of a case, Douglas adds that of thirty-seven cases reported in which a distinct abdominal tumor was present, twenty-nine were females and only eight males. On the other hand, vesico-umbilical fistulas are far more frequent in males. It is usually an affection of middle life, though it has been found as early as five or as late as sixty-six years. It also appears to be more common in boys than girls, judging from the fact that in twenty-five cases only five were under seventeen years of age, and four of these were boys. Most usually the condition is of sudden origin; the symptoms acute and rather constant. Pain is a constant feature, being dull and heavy in character, owing to the pressure of the rapidly-growing tumor, but at times becoming intense and paroxysmal. Nausea and vomiting are frequent; extreme prostration and sickening sensations are nervous symptoms of note.

Physical examination reveals a swelling chiefly below the umbilicus, immovable, uniformly soft and fluctuant, flat upon the upper surface and bulging laterally. Owing to the peculiar arrangement of the peritoneum, the percussion test is of great importance. To use Tait's words: "The pelvic dullness is quite absolute, whilst the dullness which is obtained above the umbilicus is not so, although it is perfectly certain that the wave of fluctuation passes through one volume of fluid not intercepted by any cyst wall." This is due to the intestines being pushed up by disarrangement of the pelvic peritoneum. The contents of urachal cysts are variable. Large gall stones have been found. Usually clear fluids are withdrawn, but in some cases the contents are colored.

The epithelial lining of these sacs is identical with that of the bladder walls, polygonal. The presence of mucous and polygonal epithelium in the fluid would exclude hydatid cyst, encysted peritonitis, or ovarian cyst.

Treatment can seldom be thorough. Incision, evacuation, irrigation, followed by application of iodine solutions, seems to be the generally adopted plan. To this may be added, circular drainage through the posterior cul de sac in females or tubular drainage in males. Removal of the sac necessitates the separation of extensive areas of peritoneum, which are quite prone to become gangrenous. To obviate this, Tait advises stitching the peritoneum back to the parietes. Douglas would excise the detached peritoneum and cover the space with omentum or unite the omentum and detached peritoneum and stitch both to the abdominal wall.—*American Journal of Obstetrics and Diseases of Women and Children.*

Department of General Medicine.

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

TACHYCARDIA IN PULMONARY TUBERCULOSIS; ITS SYMPTOMATIC AND PROGNOSTIC VALUE.—Drs. Durand and Mongour, of Bordeaux, have communicated to the Congress of Tuberculosis (France), a contribution which for the most part is reproduced here on account of its practical importance.

“ In our research, we have taken for examination all the cases we met, thus including pulmonary tuberculosis in all its forms and at all its stages. In each case the diagnosis was ascertained by bacilloscopy and we carefully eliminated all cases in which from local causes (compression or lesion of the heart) the rapid cardiac action might have been misinterpreted.

Our cases are classed in the following manner:

“ 1. *Pulmonary Tuberculosis Advancing Directly to Phthisis.* In all these cases, without exception, tachycardia was observed. From the first onset, the heart-beats reached 90 and 100, rising rapidly to 120, finally oscillating from 120 to 140. The graphic curve exhibiting the variations of the pulse arrived at its acme in the ultimate period, a few days before death; the pulse was then filiform and could never be counted. The temperature curve in the large majority of cases ran parallel with that of

the pulse, save at near the end, when relative hypothermia was observed. From our observations, we draw the conclusion that in the course of tuberculosis, this tendency to increasing and rapidly rising tachycardia actually constitutes one of the best signs of the evolution toward phthisis, the more so as the lesions remaining almost stationary in some of these patients, the prognosis would be erroneously pronounced in a favorable sense, if judged merely from auscultation.

“2. *Pulmonary tuberculosis advancing slowly.* (a) *Apyretic type.* Regardless of the extension of the lesion, as favorable as the hypothermia may seem, the case is always a serious one when the pulse curve oscillates above 100 beats. The moment tachycardia begins, the pulse becomes small, depressed, and the heart-beats rapidly present the fetal rhythm (embryocardia). On the contrary, apyretic cases with slow pulse-beats, as a general rule, bear well the weight of tuberculosis. Their appetite is kept up, they do not waste away, they even gain flesh. They are usually free from night sweats.

“It looks as if the more the organic reaction is favorable, the more the heart-beats decrease in number, tending to fall to sixty. One of us is attending two cases of tuberculosis, considered as cured since four years, which both present a slow pulse in a permanent manner, for at whatever time it is felt it never rises above fifty.

“We admit that this slowness of the pulse is exceptional, but we are in a position to affirm that in the generality of cases of tuberculosis, considered as cured, the pulse has a tendency to remain below the normal number of beats.

“Of course, we do not take into account the cases of glandular enlargement (tracheo-bronchial adenopathy), who generally present tachycardia, but there are still some of that class in whom an abnormally slow action of the heart is observed.

“(b) *Febrile Type.*—All that was said touching the prognostic value of tachycardia in the apyretic cases can be repeated in reference to the hypothermic cases, to such a degree that we judge of the gravity of a case of pulmonary tuberculosis much less from the elevation of the temperature than from the frequency of the pulse.

“The febrile patients with a slackening of the heart-beats, whatever the type of their fever, generally see their case of

tuberculosis brought to a happy end. Evidently, all do not get cured, but to all may be positively predicted a slow march of the disease and the possible hope of cure.

“ On the contrary, the febrile patients with tachycardia are doomed to certain death at no distant time, varying from a few days to two months. It is well-nigh the rule to see, as death approaches, a fall of the temperature, concurring with the increase in rapidity of the heart-beats. It is exactly the same remark we made when speaking of the cases advancing directly to phthisis.

“ It is, therefore, obvious how important a sign is tachycardia from the point of view of prognosis, since tachycardia alone, out of all the complex group of the physical, functional and systematic symptoms of tuberculosis, permits us to determine almost to a certainty the cases that shall either get cured or evolved in a slow and moderate course. Tachycardia is, for the clinician, a capital factor in prognosis, by far more reliable than the temperature curve.

“ The foregoing conclusions are analogous to those of Dr. Sirot, who had already written on the subject, and we give here a summary of what he has said :

1. Absence of fever, with a normal pulse, permits the prediction that the patient shall either get cured or last for a period not determinable, but certainly quite long.

2. A pulse not corresponding to febrile temperature shows strong probability that the disease shall have a slow course, notwithstanding the fever.

3. Absence of fever with a rapid pulse (tachycardia) indicates that the disease shall evolve rapidly.

4. Finally, a rapid pulse and fever concurring, the fatal issue is settled to a certainty, as the heart and lungs are both at work, so to say, to terminate the case speedily in death.

“ The observations we have found scattered about the theses of Vincent, Jonanneau, Klippel, who reported these observations without reference to tachycardia as a prognostic sign, abundantly prove our views.

“ We desire to add that as a general rule the grave omen of pronounced tachycardia is not particular to pulmonary tuberculosis; one of us, in studying the prognostic value of the disappearance of the first heart sound in typhoid fever, which is con-

sidered a fatal sign by many, has shown that the gravity arose, not from that sign alone, but from the existing tachycardia as a whole."

Bussières (*thèse de Bordeaux, 1894*), after studying the same symptom in different infections, diphtheria, cholera, variola and typhus, has reached the same conclusion. In cachexias and chiefly in cancerous cachexia, Klippel has remarked an exceedingly frequent pulse, and to it alone, regardless of the fever, he has attached the gravity of the prognosis. From the anatomic point of view this tachycardia is connected with changes in the myocardium. Moreover, it is acknowledged that certain tuberculous toxins act particularly on the cardio-vascular system, and necessarily their action is the more pronounced as the myocardium is already altered. It is well to recall here that Arloing has prepared several different tuberculins, of which some retarded the pulse while others accelerated it.—*Journal de Médecine et de Chirurgie Pratiques*, September 25, 1898.

Department of Therapeutics.

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

ERYTHROL.—This name has very recently been given to a double iodide of bismuth and cinchonidin. The preparation has been used for several years by Dr. Albert Robin (*Nouv. Rem.*, XIV, p. 341) as an analgesic, antiseptic and eupeptic in certain forms of dyspepsia accompanied with fermentation, especially butyric. The dose of the preparation is from 0.01 to 0.05 gm., preferably administered with 0.1 to 0.2 gm. of magnesia. This erythrol must not be confounded with the simple and well-known chemical erythrol or erythrite, the tetranitrate of which has recently been recommended in tablet form as a succedaneum for nitroglycerin in spasmodic affections.

GOMENOL.—This name has been given to an ethereal oil obtained from *melaleuca viridiflora* (*Pharm. Centralb.* XXXIX, p. 652), one of the myrtaceæ, introduced near Gomen, New Caledonia. This oil is said to contain 66 per cent. of cineol, a

terpene, some terpinol, and traces of acetic, butyric and valerianic-acid esters, and to be free from any poisonous aldehydes. The oil has been employed with reputed good results in pulmonary tuberculosis and other affections of the respiratory tract in doses of 0.25 gm. four times daily in capsules. The remedy is said to be equally effective in rheumatism and neuralgia and as a 2 per cent. injection in cystitis.

AIROFORM is another name recently given to bismuth oxyiodogallate, known since a few years in the trade as "Aiol." The two preparations are made by two different manufacturers, however.—*Merck's Report*.

SODIUM PERMANGANATE IN MORPHIN POISONING.—Dr. Schriber (*Semaine Médicale*) has employed sodium permanganate in morphin poisoning with success. He usually first washes out the stomach with a 2 per cent. solution of the drug and then gives 500 cubic centimeters of the same solution, repeating the procedure within a few hours.

GLANDULENE.—Under this title the dried bronchial glands of the sheep (*Klinische-Therapeutische Wochenschrift*) are prescribed for tuberculosis and pneumonia. The results so far have been very contradictory. The dose is from three to five tablets of four grains each thrice daily.

TYROSIN AND SNAKE POISONING.—According to Phisalix (*Deutsch. Med. Ztg., No. 19, 1898*), tyrosin has considerable power of immunizing against snake poisoning. It, however, does not exercise any contraethal influence if used only at the same time with the poisoning. He obtained tyrosin from the dahlia.

GUACAMPHOL.—This is a camphor ester of guaiacol. It crystallizes in white, tasteless, odorless needles. It is of value in the diarrhea and night sweats of phthisis.

EUDERMOL.—This title is given to nicotin salicylate, used in ointment form in dermatology; it contains 54 per cent. of nicotin.—*Medicine*.

CORROSIVE SUBLIMATE IN PLEURISY WITH EFFUSION.—Albert Robin uses the following mercurial pills in the treatment of pleurisy with effusion:

℞ Corrosive sublimate.

Sodium chlorid.

Extract of opium..... aa. gr. xv.

Fresh bread crumbs..... gr. lxxv.

Gluten..... gr. xxxviii.

Glycerin..... q. s.

M. Divide into a hundred pills. One, two or three to be taken daily.

FOR A "BLACK EYE."—Dr. May (*Med. Record*, Vol. II, No. 15) gives the following hints as to the treatment of "black eye:" When the patient is seen early, before discoloration has set in, cold compresses or evaporating lotions are indicated; this will reduce the swelling and limit the subsequent discoloration. But if the patient is seen after he has a fully developed "black eye," hot compresses and massage are required. The affected portion is smeared over with vaselin and is rubbed for ten minutes several times a day. By frequent massage and continuous hot applications, the discoloration may be almost entirely removed within twenty-four hours.

The professional "black eye" artists use, for several hours, a poultice of the scrapings of a root, the nature of which they keep secret, but which the author thinks is bryony root, and he has used the latter with good effects.

HAY FEVER.—Dr. Strangways has obtained gratifying results with resorcin in hay fever, but stipulates that it is quite necessary to remove the diseased conditions in the nose, for by this means often the attack can be aborted and possibly cured when his proposed nasal wash is made use of. He advises frequent washing with the following solution:

℞ Acetic acid..... about 2 minims.

Resorcin 120 milligrammes or about $1\frac{3}{4}$ grains.

Common salt..... 260 milligrammes or about 4 grains.

Water 30 c. c. or about 1 fluid ounce.

Accompanying this frequent washing, hydrochloric acid is prescribed internally.—*The Practitioner*.

NEW PREPARATIONS FROM CREOSOTE.—Dr. Brissonnet (*Journal des Sciences Médicales de Lille*) described to the Congress for the study of tuberculosis new combinations obtained by him from creosote, of feeble odor and savor, and well tolerated, phosphate of creosote, a colorless liquid, and tannophosphate of creosote, an amber-colored liquid, determining an increase of urea

and urinary acidity. Creosoform is a greenish powder resulting from the combination of formic aldehyde with creosote.

THE INFLUENCE OF PHOSPHORIC ACID WITH CREOSOTE IN TUBERCULOSIS.—Dr. Boureau (*Nouveau Montpellier Médical*) has published a work in which he extols the favorable influence of phosphoric acid combined with creosote in the nourishment of tuberculous subjects. The amount of urea, the urinary acidity, and the weight of the patients have consistently increased in tuberculous children under observation in hospitals. The phosphoric acid appears to act by creating a state of hyperacidity, thus modifying the condition of the tuberculous, which is nearly always hypoacid.—*N. Y. Medical Journal*.

Miscellaneous.

A REMARKABLE CASE OF DERMOID CYST OF THE TONGUE.—The patient (age 32) relates that the disease showed itself first five years ago. It began with swelling of the tongue and the neck, lately hindering speech and swallowing.

Examination showed under the tongue a fluctuating tumor occupying the whole cavity of the mouth. It was connected with another swelling in the lower jaw. The tumor was circumscribed and mobile, speech was indistinct, and respiration hoarse and difficult. Patient was unable to swallow anything but liquid nourishment. Puncture by means of the Pravaz syringe brought forth a pap-like mass. The tumor was removed. It proved to be a dermoid cyst having its origin in the base of the tongue. The tongue in consequence of the continuous pressure had become quite thin.

The size of the tumor was that of an apple. The tumor contained 250 grams of a pap-like mass. Recovery was speedy and healing went on smoothly. Patient was discharged cured after a fortnight's treatment. The swallowing was again quite normal and the speech was greatly improved.—DR. AMEISEN—*Wratch—Deutsche Med. Gaz., Sept., 1898.*

TRAUMATIC LESION OF THE BRAIN; OF THE HEART AND OF THE LUNGS. RECOVERY.—*Wratch*, Nov. 15, 1898, relates from the

minutes of the Medical and Surgical Association of Batum, Russia, a case Dr. Fenser reports of a man 28 years of age who was shot through the brain, the heart and the lungs and—not only remained alive, but almost entirely recovered.

CASE: The examination of the wounded man showed four wounds, one on the left above the root of the nose, one near the left nipple, one in the left zygomatic region and one on the left side of the ear.

From the wound in the skull blood oozed out. The wounded man was unconscious and nearly pulseless. Extremities cold and heart-sounds dull. Dressing and auto-transfusion of blood from the extremities toward the inner organs. Warming of the extremities by means of warming bottles.

Subcutaneous injections of camphor, and champagne by the mouth. After two hours and a half the wounded man began to move, after five hours consciousness returned. The lesion of the brain showed itself by paresis and loss of sensibility of the whole right-half of the body; the lesion in the lungs by hemoptysis, in decrease of the vocal fremitus in the lower part of the thorax (due to blood extravasation in the pleural cavity), in tympanic sounds of the upper part of the thorax. Finally the increased dullness of the heart-sounds, which, however, slowly disappeared, indicated the gathering of a larger quantity of blood in the cavity of the pericardium, probably brought about not only by lesion of the pericardium, but of the heart itself.

The treatment consisted in ice compresses on the head and the cardiac region, internally in the administration of *ferrum sesquichloride*, later on digitalis, iodide of potash, massage and faradization of the extremities.

Status after six weeks of this treatment is as follows: Patient unaccompanied undertakes prolonged promenades through the town, and he is even able to go up staircases. But he is easily excited and suffers somewhat from loss of memory.

METHYLEN-BLUE IN NERVOUS HEADACHE AND HEMICRANIA is recommended by Thompson and Levy, and it is now largely employed with good results and noted effects. The drug is prescribed in doses of fifteen grains, several times a day; wafers being used.—*St. Petersburger Medizinische Wochenschrift*.

INNERVATION-DISTURBANCES OF THE VAGUS IN TYPHOID FEVER.—Drs. G. Monteux and P. A. Lop relate two rare cases of innervation disturbance of the vagus in the course of typhoid fever. The authors observed during the last typhoid epidemic in Marseilles two rare cases of vagus affection.

In the one case an attack of dyspnea, without fever, with rapid transient congestion in the lung, was observed, together with tachycardia, sensibility to pressure on vagi of the neck, tympanitis of the stomach and repeated vomiting, and this in the absence of all lung lesions or albuminuria.

A second case was marked by singultus, vomiting, attacks of asphyxia, during which Cheyne-Stokes respiration could be observed and high degree of tachycardia, the heart beating dull and feeble.

The authors arrived at the following conclusions:

1. Typhoid fever may, irrespective of the known complication, in its course exhibit innervation disturbances of the vagus nerves, paralysis, paresis or states of irritation.

2. These disturbances have a different symptomatology, according to the regions of the vagus nerves distribution: Vomiting, singultus, dyspnea, tachycardia.

3. These disturbances demand energetic treatment. Skin counter irritants in all forms; vesicatories in the neck and in the heart region, over the epigastrium, cauterization (which alone was sufficient in one of the cases) and subcutaneous injections of strychnia and caffein.—*Revue de Médecine*.

A NEW FIELD TOURNIQUET has been devised by Oliver D. Norton, M. D., Surgeon United States Navy, as an improvement on the present field tourniquet used in the navy known as the United States Army tourniquet. The substitute has among its advantages, efficiency, readiness and ease of application, the absence of buckle or screw, its size and weight, and its cheapness. The tourniquet consists of a hard-rubber pad, ovoid in shape, somewhat smaller in size than a hen's egg; the diameters are two and one-eighth inches by one and one-half inches; its weight complete is two and one-half ounces. A slot, one inch in width, is cut in the upper third at right angles to the long axis of the pad; through this slot passes the webbing. The webbing consists of a strip sixty inches in length by one

inch in width. The simplicity of the tourniquet is in its favor, for any layman can apply it. The traction is made both sides of the pad equally by the downward pressure of the webbing, thereby preventing the displacement of the pad. The ends of the webbing, being brought around the limb, are tied directly over the pad with a square knot. The tourniquet can be sterilized without fear of injury or oxidation.—*Medical Record*.

ON THE DANGER OF CONTAGION BY THE BUBONIC PLAGUE.—Dr. G. Sticker was a member of the commission sent to Asia in order to investigate this dreadful scourge. He remained nearly four months in Bombay for that purpose.

He speaks on the dangers of contagion not only on the basis of his own personal experience, but from a general contemplation and consideration of plague epidemics during the last three centuries.

In accordance with many other investigators, he comes to the conclusion that the rat-plague forms the groundwork for a plague epidemic among men. He also expresses his opinion that the spreading of the scourge from house to house is from this very cause, and likewise to this is due the distribution of the plague-exciting agent in the human dwellings, and says that one can not give too much consideration to this cause—namely, to hold the rat-plague responsible for the bubonic plague in man. Dr. Sticker is furthermore of the opinion that direct evidence could and, if inquired into, will doubtless be forthcoming to prove that in the plague in ships, *rats* were the carriers. Sticker is inclined to believe that in cases when ships brought the plague to foreign shores, notwithstanding a perfectly healthy crew on board, or when during the voyage suddenly the plague broke out on board ship, the cause was not at all the infected merchandise, but actually through rats. Rats distribute not only the plague from house to house, but maintain it endemically in certain localities—for instance, on the southern slope of the Himâlaya—or, in their migrations, carry the contagion into regions not until then visited by the scourge.

In man the plague is unknown *endemically*. But from the subterranean rat-scourge to the scourge on the surface among men the step is surely not a very large one; provided, namely, we admit insects as carriers and go-betweens.

It is questionable whether, besides rats and mice, other mammiferes, or birds are able to distribute the plague.

What we really know about plague-epizootics among dogs, pigs, sheep, goats, cattle and domestic birds, fowls, and the different species of birds living in the free air is, indeed, so very little, so very uncertain and so altogether without evidence that the question must remain, as yet, an open one.

Especially with regard to the transition and transmission from the above mentioned epizootic plague to man, nothing is known.

Preparatory labors, however, in the form of experiments upon animals, are steadily going on.

In these experiments, pigeons, geese, fowls and pigs prove to be unsusceptible; while dogs, cats, sheep, goats, cows and horses became at least transitorily ill, and afterward were restored to health. Monkeys are very susceptible, especially the so-called holy gray ape.

All in all, according to the final conclusions of Dr. Sticker, the way which the pestilential agent takes to rage finally epidemically among men is by no means so simple as to let us be contented with the word *contagion*, or indirect transmission from man to man, by the medium of pest cadavers, or clothes, etc. The plague-infection pursues manifold, intricate paths. In some of them one given kind of transmission, in others another kind predominates in an epidemic, according to local and temporal circumstances.

Only he who knows or considers all possible possibilities extant will have in his power the prophylactic means to prevent or at least to restrict in its proper limits this dreadful scourge.—*Wiener Klin. Rundschau.—Deutsche Med. Zeitung.*

CONTRIBUTION TO THE DOCTRINE OF RACHITIS.—An abstract of Loeb from the *Revue Médicale* gives us the result of the labors of L. Baumel and Oechsner de Coninck concerning the doctrine of rachitis, or rickets.

I. In the urine of rachitic children there exist variously colored pigments, which could be deposited by metallic salts. Probably there exists a connection between this abnormal formation of coloring matter and the rachitic thorax-deformity, so that the impediment of the lung-circulation leads to stagnation in the liver and spleen and thus impairs the formation of blood.

The pigment, besides, showed destruction of numerous erythrocytes.

II. Comparative investigations of the proportions of elimination of calcium and magnesium reveal the fact that in rachitis the chalk (or lime) of the bones may be partially substituted by magnesia. In this a remarkable parallelism exists with osteomalacia.

III. The two named authors, Drs. L. Baumel and Oechsner de Coninck, give us the theory of rachitis, thus:

The primary symptoms of the disease consist in an abnormal state of the abdominal organs, swelling of the stomach and intestines, gastro-enteritis, etc. In consequence of this, acid fermentation of their contents sets in, which, in its turn, leads to an acid diathesis. By this the elimination of the phosphates of calcium increase in the urine, which (ph. of calc.) dissolve in the blood the more readily because of their hyperacidity. On the other hand the absorption of the phosphates becomes more difficult because of the state of the intestine.

Therefore the authors are of opinion that the acid does not dissolve the chalk already deposited in the bones, but impedes the assimilation of the calcareous salts circulating in the blood. At the same time there exists a diminution of the faculty of resorption of the intestine concerning the calcareous salts and thereby an increased excretion through the kidneys.

TWO CASES OF CORNU CUTANEUM OF THE EYELIDS.—Dr. Bataban, in *Wratch* (a Russian medical hebdomadary), March 2, 1898, gives the following cases of *cornu cutaneum*:

1. A woman, *æt.* 46, showed on the skin of the inferior right eyelid a tumor which had developed within three months. In the beginning it had had the form of a mere light brown painless prominency. On examination, Dr. B. found a hard, horny tumor, more than 13 *cm.* long and gradually pointed. It was continuous with the skin, but was sharply delineated. On account of its weight, the tumor was causing ectropion. At the side of this tumor two smaller ones existed respectively 4 and 2 *mm.* long, reminding one of pointed condylomata. Under cocain anesthesia, Dr. B. made a circular incision and separated the tumor from the subcutaneous cellular tissue. Bleeding insignificant. Silk suture, which was removed on the third day, Healing *per primam*.

2. A spinster, 50 years of age, showed likewise a hard, cornified tumor on the under eyelid, which had formed within a few months. It was 8 mm. long. In this case also the tumor was easily removed.

In order to investigate both tumors microscopically, parts of them were put in a 10 per cent. solution of formalin and afterward colored with hematoxylin and eosin.

Both tumors showed typical papillomatous structure, with this difference, however, that in the cells of the middle layers a considerable deposit of keratin existed. The superficial layers of the epidermis were decidedly cornified. Even in the largest tumor, of a complete horny development, papillæ were seen.

On the basis of Dr. Battaban's investigations, he wants these skin-horns to be classed among the papillomas, from which they differ only by a stronger development of the epidermis, and by their considerable cornification.

Instead of *cornu cutaneum* Dr. B. proposes, therefore, to designate this kind of tumor: "*Keratosis papillomatosa.*"

ACUTE MANIA AFTER CATARACT OPERATIONS.—A man, *æt.* 92, hitherto healthy, and yet very robust, was submitted to a cataract operation on the right eye. This operation was most successfully and quickly performed. Anesthesia was produced by six drops of a 2 per cent. cocain solution. In the second night after the operation severe maniacal conditions set in. They lasted sixteen days. Dr. Fromaget attributes these conditions to a persistent constipation and retention of urine (autointoxication). During two days anuria prevailed. Afterward a small quantity of urine was voided (300-900 *c. cm. pro die*). After injections of caffen, the quantity of urine increased. Such psychoses are sometimes observed after cataract operation in old people.—*Annales de la Policlinique de Bordeaux, 9, 1898.*

AMBLYOPIA IN HORSES.—At a meeting of the College of Physicians of Philadelphia, Dr. G. E. de Schweinitz read a paper on amblyopia in horses, probably due to the toxic influence of tobacco, as described by Dr. James W. Barrett, of Melbourne, Australia. Through the courtesy of Dr. Barrett he was enabled to exhibit to the Section two slides which Dr. Barrett had prepared from the optic nerves of a horse which had become blind

owing, it was supposed, to the consumption of some plant, probably the Australian tobacco plant. One of these sections, originally stained with carmine, had been removed by Dr. de Schweinitz from the slide and restained by the Weigert method. The section was composed of about one hundred nerve bundles, some of which showed distinct signs of disease, namely, a species of fibrosis which separated, pressed upon, and destroyed the individual nerve fibres. This was a marked phenomenon in several of the bundles and less apparent in others. The Weigert section confirmed, in large measure, the observations all ready made by Dr. Barrett, who also found atrophy of the nerve fibres, but who did not describe abnormal development of connective tissue. It appeared exactly to coincide with the observations of Dr. Tidswell, who described the condition as one of progressing fibrosis with some degeneration of the nerve fibres.

PILOCARPIN IN CHORIO-RETINITIS.—Dr. Hansell detailed two cases of non-syphilitic central retino-choroiditis, in which the disease had been checked and vision greatly improved by the injection under the skin of pilocarpin muriate, and alluded to two others that were still under treatment, in which the benefit from the administration of this drug was marked. In all the cases potassium iodide and mercury had been previously exhibited in large doses, without avail. In No. 1, vision had fallen to $\frac{2}{200}$. The patient received daily, or on alternate days, according to its effect upon the heart's action, $\frac{1}{12}$ to $\frac{1}{8}$ grain. In four weeks vision was restored to $\frac{2}{20}$ (?). In No. 2, vision was reduced to $\frac{2}{50}$, and, by the same treatment continued for seven days, was brought to nearly the full acuity. In none of the cases could a history of syphilis or other constitutional disease be obtained. Dr. Hansell's experience with pilocarpin in the above and other cases warranted his asking for the remedy a trial in the treatment of chorio-retinal inflammations, particularly in the acute form, and of opacities of the vitreous frequently associated with choroidal disease.

THE FOURTH CONGRESS FOR THE STUDY OF TUBERCULOSIS IN PARIS, July 27 to August 2, 1898.—At this meeting Dr. Hubbe said; The precautionary measures by the government of Belgium are even more Draconian than those in force by the government of Denmark against the spreading of tuberculosis by

the means of cattle to be slaughtered and to serve for human food. All living animals brought to Belgium are held at the frontier and are subjected to a quarantine of at least three days. During that time injections with tuberculin are made and all animals which show a reaction are isolated and sent back. Thus tuberculous animals are prevented in entering Belgium from abroad, since quarantine at the frontier is obligatory to all animals, and all animals are subjected to injections of tuberculin. Those which show no reaction, because they are healthy, are the only ones permitted to be sold in open market.

In the interior the lookout for cattle affected with tuberculosis is most diligent and efficient. All veterinaries are in duty bound to report to the authorities all diseased and even suspected animals they have cognizance of. These animals are at once isolated and are carefully examined by medical men who must be skilled and experienced meat inspectors. If the previous diagnosis of the veterinaries proves to be correct, the diseased animal is killed and the carcass destroyed. Its owner is compensated by the government. The compensation varies from 10 to 25 per cent. of the market value. But if the animal is a breeding steer, or a cow quick with calf, the compensation rises from 20 to 50 per cent.

Any animal suspected of tuberculosis is to be isolated by the owner. Then it is injected with tuberculin, and in case of positive reaction is killed and an autopsy held. If tuberculosis is then found to exist, the government at once orders researches to be made in order to ascertain whence the animal came, and if in that locality other diseased cattle is found out, it is at once killed and the owner compensated according to the above mentioned ratio.

Only government veterinaries are permitted to handle and to use tuberculin. By these measures the hiding and withdrawal of diseased cattle is prevented.

Only meat of diseased animals is confiscated. The sale of milk coming from diseased cows is strictly prohibited.

In the foregoing spirit all other regulations are made.

Of course the cost which all these government measures cause is very considerable. In the year 1896, the Belgian Government paid 800,000 francs for compensation—that is, \$160,000. In 1897, the sum for compensation amounted to over 1,000,000

francs—that is, over \$200,000 of our money. In this calculation the fee the veterinaries receive for one injection, varying from 1 to 2 francs, is not included.—*Deutsche Med. Zeitung*, Nov. 10, 1898.

SCHOOL PHYSICIANS IN JAPAN.—The *Deutsche Medizinische Zeitung* of Berlin, of November 10, 1898, notes the recent creation of a bureau of school physicians in Japan.

A number of medical men have already been appointed.

According to their instructions from the Secretary of Public Instruction, who in Japan, like in Germany and France and other European countries, is a cabinet minister, these physicians must visit the school, to which they are assigned, at the beginning and the closing of each school term, and, besides, at least once a month during that term. Their visit must take place during school hours and their closest attention must be given to all hygienic conditions. At the end of the school term they are to report their observations and suggestions, in writing, to the Secretary of Public Instruction.

RESULTS OF THE SERUM TREATMENT OF DIPHTHERIA IN RUSSIA.—In the Russian medical paper "*Medicinskae Obosrenie*," Vol. 50, November 3, 1898, Dr. Wertepow gives some very interesting details of the anti-diphtheric serum in the "Staniza (Colony of Kossacks) Slepzowskaja." The same number contains a highly interesting case of a very late application of the serum with complete recovery, written by Dr. Bronstein.

1. W. reports on his experience with the serum in a late diphtheria epidemic.

Of those patients who were treated with the serum, nine in all, 5 per cent. died; the other patients who were treated by other means showed a mortality of 40 per cent.

There were in no case complications.

2. The interesting case of Dr. B. was a girl, *æt.* 3, suffering from a very grave diphtheritis of the fauces with transition to the larynx.

Unfortunately there was no fresh serum at hand, and Dr. B. treated the case by all the known remedies, but without success.

Meanwhile the state of the girl became worse and worse, and had soon to be considered hopeless.

Then Dr. B. resolved, on the sixth day of the disease, to apply a serum one and one-half years old. It was already turbid, but on shaking it, it showed neither flakes nor filaments. Dr. B. made two injections, altogether of the strength of 1:1000, and the result was an astonishingly successful one. All local phenomena diminished and gradually retrogressed, the general state of the little sufferer became better and better, and the child recovered completely.

A remarkable effect in another direction took place as well. The child had suffered, previously to the attack of diphtheria, from a very obstinate eczema, which, after the application of the serum, disappeared completely.

ON THE OXIDATION OF ARSENIUS ACID IN THE HUMAN ORGANISM.—C. Binz and C. Laar show, in the *Arch. für Experiment. Pathol. und Pharmakologie*, that when arsenious acid is introduced in the human organism it appears in the urine, chiefly as arsenic acid. Both, besides, are eliminated in very small quantities indeed, because of the oxidizing force of the urine itself.

RADICAL MEASURES TO ABOLISH MALARIA.—The *Deutsche Medizinische Zeitung*, of November 7, 1898, brings a peculiar proposition or suggestion of Dr. Lewkowicz, which the latter published in *Przegląd Lekarski*, 33, 1898, a Polish medical journal.

Dr. L. is of the opinion that during ONE AND THE SAME winter all cases of malaria should be brought to a conclusion, either by recovery or, in fatal cases, death. In this way the site of infection would be destroyed and in the coming spring no new cases of malarial diseases would be observed. But as is next to impossible to locate *all* malaria patients in a given region, Dr. L. suggests and recommends to submit the *whole* population in said malaria regions, *nolens volens*, to a treatment of quinin.

Adults: One gram, or 15 grains, per diem; children, according to their age, a corresponding quantity. This treatment should be employed as a prophylactic during a fortnight.

In the old paternal governments of Europe such a suggestion, if approved by the home secretary, may become a sanitary police regulation and be enforced; but a similar suggestion would have little chance of successful bearing in these United States, where personal and individual liberty is so highly prized and so jealously guarded that even a universal vaccination of the virus of small-pox can not become, or at least has not become, as yet, a matter of legislation, and only by the indirect means of exclusion from the public schools, or in the army and navy by direct regulation, has the administration or have the State sanitary authorities been able to make propaganda in this respect. But the mere idea to submit a whole population, or part of a population, whether they wish it or not, when yet healthy, to such a treatment, would seem to the majority of people utterly absurd.

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.

Treatise on Diseases of Women. For the Use of Students and Practitioners. By ALEXANDER J. C. SKENE, M. D., LL. D.; Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; etc. Third Edition. Revised and enlarged. With 290 Engravings and 4 Plates in Colors. D. Appleton & Co., New York, 1898.

In performing vaginal hysterectomy, in controlling bleeding vessels deeply situated in the pelvic cavity and in treating the pedicle of ovarian cysts, the doctor advocates the electric cautery applied by means of specially made pressure forceps devised by himself. The forceps, in the first operation, is applied to the broad ligaments, heated to the required temperature, and left in place for two or three minutes, the uterus then being cut away and the forceps removed. The doctor claims

that no secondary bleeding has ever occurred in his cases. The trouble with the employment of this instrument is that a certain amount of experience is required to know just how much heat is necessary to do the work satisfactorily. For some reason, which is not given, he has never tried the procedure in abdominal hysterectomy. The instrument is certainly ingenious, and if all that is claimed for it can be obtained, it will prove a valuable addition to our surgical armamentarium.

He is still a strong advocate of the pessary in the treatment of retroversion of the uterus. All that is required, says he, is to shape the instrument to the case in hand, and to properly place it when the womb has been returned to its position, the difficulty or ease in accomplishing which depending on the artistic and mechanical skill of the surgeon.

The chapter on Vaginal Tears has been almost entirely rewritten, and is rather complete. There is a new chapter on Diseases of the Bladder.

The book is much larger than that of any previous issue. It reflects all through the individuality of Doctor Skene, and there can be no stronger recommendation of its worth.

MICHINARD.

A Text-Book of Practical Therapeutics. With Especial 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 Bros. & Co., Philadelphia and New York, 1898.

It was our privilege ten months ago to review the sixth edition of this meritorious work, and that a new edition was found necessary in so short a space of time is the best proof of its many good qualities, being recognized by the medical profession. The present edition is far in advance of the previous one in many respects, and well sustains the reputation of the author. The text has been made to conform not only, as it has done, to the Pharmacopeia of the United States, but also to the British Pharmacopeia for 1898.

STORCK.

Manual of Chemistry. By W. SIMON, PH. D., M. D. Lea Brothers & Co., Philadelphia and New York, 1898.

A good text-book for students of medicine and of pharmacy. It is divided into seven parts, treating respectively of: First, the fundamental properties of matter; second, the principles of chemistry; third, non-metals and their combinations; fourth, metals and their combinations; fifth, analytical chemistry; sixth, organic chemistry; seventh, physiologic chemistry. The arrangement is convenient, and the necessary ground is thoroughly covered.

Probably the distinctive feature of the work is its eight plates which illustrate the most important chemie tests for the metals, the benzene derivations, the alkaloids, and the urine. They are beautifully colored,

and serve as a practical guide to the recognition of precipitates, etc., which otherwise leave such a hazy recollection to the novice.

The rapid succession of editions (this is the sixth) attests to the appreciation of the work.

C. C.

Atlas of Syphilis and the Venereal Diseases. By DR. FRANZ MRACEK. Authorized translation from the German. Edited by L. BOLTON BANGS, M. D. W. B. Saunders, Philadelphia, 1898.

This is composed of seventy-one colored lithographic plates, each accompanied by a page or less of explanatory text. Over one hundred pages on the pathology and treatment of venereal diseases follow. The diseases and types of most common occurrence have been selected in order to economize space and put the work within the reach of the majority omitting what would interest only the specialist.

It is regrettable that in speaking of venereal ulcers, the term soft chancre is used, and that the lesion is often referred to as chancre. Students too easily get mixed on this point, and it would be preferable to use the word chaneroid constantly.

The book is of convenient size; the plates are very good. The atlas is inexpensive, and deserves a favorable reception.

C. C.

Manual of the Diseases of Children. By JOHN MADISON TAYLOR, A. M., M. D., and WILLIAM H. WELLS, M. D. Illustrated. P. Blakiston's Son & Co., Philadelphia, 1898.

This book is a manual of over 700 pages and is important, as it contains no superfluity; all that is written is strictly necessary to the practitioner.

Anatomic and physiologic characteristics are given, introducing the infant and the child to the reader. The thymus gland is well illustrated, and the authors suggest that "the due enlargement of this gland may be accountable for some cases of sudden death in infants."

The four lines on salivary glands are valuable. Excellent advice is given for critical circumstances attending the important event of birth. Figures are given which help demonstrate what is to be done to revive the asphyxiated new born.

Due attention is also given to the all-important cord stump.

The crowning feature of this introductory portion of the book is in sixty-two pages given up to the vital question of the hygiene of infants and children, whole chapters being devoted to the salient points of the problem of "feeding."

Typical and atypical cases occurring in practice are described in a clear style and the treatment advised in all cases is not only moderate but reliable.

The classification of acute infectious disease is novel, including tuberculosis, malarial fever, syphilis and bubonic plague.

The value of the book is again mentioned by the articles on "General considerations of physical development," and on "Diseases and accidents requiring surgical procedures," which every practitioner should read.

The work is a large note-book full of substance, rendered easily digestible and assimilable by a pleasant presentation and arrangement of the whole subject.

DUPAQUIER.

Guide to the Clinical Examination and Treatment of Sick Children. By JOHN THOMPSON, M. D., F. R. C. P., Ed., etc. Lea Brothers & Co., Philadelphia and New York, 1898.

This book is a collection of excellent clinical lectures and a miscellany of good sound advice. Some passages may be selected as aphorisms. It is written with more originality than is allowed in classic compilation, and necessarily it is attractive.

Imparting practical information in the enlivened style of clinical lectures the facile author has given the heavy text-book a refreshing companion.

DUPAQUIER.

Medical Diseases of Infancy and Childhood. By DAWSON WILLIAMS, M. D., London. Lea Brothers & Co., Philadelphia and New York.

This is a handbook in which the author gives the clinical description and the treatment of medical diseases from his experience, gained during many years' service at the hospital (East London for Children, Shadwell). It may be remarked that with regard to acute infectious diseases, the important subject nowadays, some of the arrangement and statements are a little behind the times for 1898, otherwise the book shows ample proof of the author's experience.

DUPAQUIER.

A Clinical Manual of Skin Diseases. By W. A. Hardaway, A. M., M. D., Professor of Diseases of the Skin and Syphilis in the Missouri Medical College, St. Louis, etc. Second Edition, with forty-two engravings and two plates. Lea Brothers & Co., Philadelphia and New York, 1898.

The popularity of the first edition of Dr. Hardaway's text-book has justified the publishers in issuing a second edition. This has been revised in many ways, bringing the diseases up to date in their description and treatment. Dr. Hardaway has done away with his original alphabetical arrangement, and has grouped the diseases considered according to their classification, which follows that of the American Dermatological Association, in the main.

The author has written so often upon dermatologic subjects that the text is finished and full of suggestions of value to the student and practitioner. It is an improvement upon the former edition. Whatever fault the work

may have consists in the mistake the author makes in presuming that the student knows more than he actually does know. For this reason differential diagnosis suffers in its omission in some of the commoner diseases. While the author is more anxious, therefore more explicit, in the rarer affections, which the student and general practitioner are less apt to see.

Altogether the revision makes the new work as desirable as the older edition, and it must occupy its place among the text-books. DYER.

Manual of Diseases of the Skin. By L. DUNCAN BULKLEY, A. M., M. D., Physician to the New York Skin and Cancer Hospital, etc. Fourth Edition, Revised and Enlarged. G. P. Putnam's Sons, New York and London. The Knickerbocker Press. 1898.

In everything Dr. Bulkley writes there is a strong impress of individuality in the work. This is true of the little manual which has reached its fourth edition, and it is its chief fault.

The text is carefully written, and shows an attention to detail which is characteristic of the author. The classification is the best in arrangement for the student that we have yet seen. It is a pity that the author is so strong a believer in a formulary, for this in almost all books is confusing to the student, who grows to think in prescriptions and forgets indications for them.

In many ways the fourth edition is an improvement on the former editions of Dr. Bulkley's work, and to the practitioner it must appear as a readable and simple guide to the study of a difficult branch of medicine.

DYER.

Elements of Histology. By E. KLEIN, M. D., and J. S. EDKINS, M. B. Lea Brothers & Co., Philadelphia and New York, 1898.

This excellent little work has been enlarged and brought up to date in this edition. The chapters on the nervous system have been practically rewritten and numerous illustrations added. Dr. Klein has associated to himself Dr. Edkins as joint author, and this has been an excellent selection.

We know of no small work superior to this for a beginner and student of histology.

P. E. A.

A Text-Book upon the Pathogenic Bacteria. By JOSEPH MCFARLAND, M. D. W. B. Saunders, Philadelphia, 1898.

The second edition of this work is a decided improvement over the first; the additions therein making it a good laboratory guide for students, and more of an approach to a systematic work upon bacteria. A number of new chapters have been added on the bacteriology of mumps, whooping cough, hog cholera, swine plague, yellow fever, etc.

The yellow fever chapter we specially commend as being a very fair *exposé* of the subject to the first of January, 1898. In the subsequent edition, considerable will have to be added thereto, as since above date con-

siderable work has been contributed on the subject in New Orleans and elsewhere.

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. In Twenty Volumes. Volume XV. Infectious Diseases. New York: William Wood & Co., 1898.

This volume contains articles on the following subjects: Influenza, by Ditmar Finkler, of Bonn; Typhus Fever, by Eduardo Licéaga, of Mexico; Plague, by S. Kitasato and A. Nakagawa, of Tokio; Glanders, by Frank S. Billings, of Grafton, Mass.; Anthrax, by Frank S. Billings; Foot and Mouth Disease, by Ismar Boas, of Berlin; Actinomycosis, by Emile Ponfick, of Breslau; Rabies, by N. S. Keirle, of Baltimore; Pyemia and Septicemia, by J. McFadden Gaston and J. McFadden Gaston, Jr., of Atlanta, Ga. All are articles of great value and treated in the light of recent bacteriologic science. The article on Influenza, by Finkler, is especially good and complete and treats of the subject in a masterly way, giving all the recent discoveries and theories as to the etiology of this affection. The article on the Plague, by S. Kitasato and Nakagawa, is rather short and does nothing but mention the preventive inoculation practised by Haffkine, Lustig and Galeotti, and the serum inoculations of Tersin. At this late date it seems to us we are almost prepared to hear judgment passed on these measures, and have them endorsed or rejected by recent writers on the plague.

As it is, however, this volume is one of the best of the series and should find its place in all complete libraries.

* P. E. A.

Histology: Normal and Morbid. By EDWARD K. DUNHAM, PH. B., M. D. Lea Brothers & Co., New York and Philadelphia, 1898.

This is an excellent work for students and practitioners. The bulk of the text, as it should naturally be, is devoted to the normal histology of the tissues and a general statement of the alterations in structure attributable to morbid cellular activity as observed in particular specimens form the pathological portion of the volume. The chapters on tumors are especially well described and illustrated.

P. E. A.

PUBLICATIONS RECEIVED.

Principles and Practice of Medicine, by Wm. Osler, M. D.—D. Appleton & Co., New York, 1898.

Manual of the Diseases of the Skin, by L. Duncan Bulkley, M. D.—G. P. Putnam's Sons, New York and London, 1898.

Text-Book of Medical and Pharmaceutical Chemistry, by Elias H. Bartley, M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

Manual of Venereal Diseases, by James R. Hayden, M. D.—Lea Bros. & Co., New York and Philadelphia, 1898.

Text-Book of Pathology, by Alfred Stengel, M. D.—W. B. Saunders, Philadelphia, 1898.

Histology: Normal and Morbid, by Ed. K. Dunham, M. D.—Lea Bros. & Co., New York and Philadelphia, 1898.

Manual of the Practice of Medicine, by Fred. Taylor, M. D.—J. & A. Churchill, London; P. Blakiston's Son & Co., Philadelphia, 1898.

The Mind Reader, by L. M. Phillips, M. D.—F. Tennyson Neely, London and New York, 1898.

Clinical Lectures on Mental Diseases, by T. S. Clouston, M. D.—Lea Bros. & Co., Philadelphia and New York, 1898.

Diet and Food, by Alexander Haig, M. D.—J. & A. Churchill, London; P. Blakiston's Son & Co., Philadelphia.

Pocket Medical Dictionary, by George M. Gould, M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

The Medical News Visiting List, 1899.—Lea Bros. & Co., Philadelphia and New York, 1898.

Physician's Visiting List, 1899.—P. Blakiston's Son & Co., Philadelphia, 1898.

Primer of Psychology and Mental Diseases, by C. B. Burr, M. D.—The F. A. Davis Company, Philadelphia, New York, Chicago, 1898.

Index Catalogue of the Library of the Surgeon General's Office, United States Army, Second Series, Vol. III.

International Clinics, Vol. III, 8th Series.

Practical Urinalysis and Urinary Diagnosis, by Charles W. Perdy, M. D.—The F. A. Davis Company, Philadelphia, New York, Chicago, 1898.

REPRINTS.

The Surgical Treatment of Uterine Myomata, by Henry O. Marcy, M. D. *Intubation*, by Edward M. Plummer, M. D.

The Pulse—Its Diagnostic and Prognostic Value, by T. S. Dabney, M. D. *The Dangers of Specialism in Medicine.—Manifestations of Syphilis in the Mouth*, by D. Duncan Bulkley, M. D.

Ergot Aseptic.—The Pharmacologic Assay of the Heart Tonics, by E. M. Houghton, M. D.

The Dermal Coverings of Animals and Plants.—Deaths (Ten), Surgical and Causes.—Serpents and Their Venom: Copperhead, Coral and Rattlesnake, by B. Merrill Ricketts, Ph. B., M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR OCTOBER, 1898.

CAUSE.	White	Colored...	Total
Fever, Malarial (unclassified).....	19	5	24
“ “ Intermittent .....	.....	1	1
“ “ Remittent	4	1	5
“ “ Congestive.....	10	2	12
“ “ Typho	8	1	9
“ Yellow	41	2	43
“ Typhoid or Enteric.....	11	5	16
“ Puerperal	1	2	3
Influenza.....	.....	.....	.....
Measles .....	.....	.....	.....
Diphtheria	1	.....	1
Whooping Cough	5	3	8
Apoplexy	11	6	17
Congestion of Brain.....	6	3	9
Meningitis	7	2	9
Pneumonia.....	15	13	28
Bronchitis	8	8	16
Cancer.....	11	4	15
Consumption	52	41	93
Bright's Disease (Nephritis)	21	8	29
Uremia	15	.....	15
Diarrhea (Enteritis).....	17	7	24
Gastro-Enteritis .....	.....	.....	.....
Dysentery.....	7	1	8
Hepatitis	2	.....	2
Hepatic Cirrhosis	11	5	16
Peritonitis.....	2	.....	2
Debility, General .....	.....	2	2
“ Senile	8	10	18
“ Infantile	2	6	8
Heart, Diseases of.....	39	15	54
Tetanus, Idiopathic .....	.....	.....	.....
“ Traumatic	4	4	8
Trismus Nascentium.....	9	3	12
Injuries	5	2	7
Suicide	4	.....	4
All Other Causes	99	48	147
TOTAL	455	210	665

Still-born Children—White, 32; colored, 20; total, 52.

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

Death Rate per 1000 per annum for month—White, 28.52; colored, 31.50; total, 29.70.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.11
Mean temperature.....	68.00
Total precipitation.....	1.77 inches
Prevailing direction of wind, north.	

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. LI.

JANUARY, 1899.

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.]

DIAGNOSIS AND OPERATIVE TREATMENT OF TUMORS OF THE LOWER MAXILLA.*

By EDMOND SOUCHON, M. D.

PROFESSOR OF ANATOMY AND CLINICAL SURGERY, TULANE UNIVERSITY; FELLOW
OF THE AMERICAN SURGICAL ASSOCIATION, NEW ORLEANS.

The whole of the clinical and practical interest of the tumors of the lower maxilla rests upon the size and situation of the tumors, and upon the peculiar points of the operative treatment.

First, as to size. *Large Tumors*, i. e., tumors of about $3\frac{1}{2}$ inches by $2\frac{1}{2}$ inches and above, all require resection of the bone, partial or total, whether they are false or true, benign or malignant.

Small Tumors, i. e., of about $2\frac{1}{2}$ inches by $1\frac{1}{2}$ inches and below, are all curable by gouging or enucleation, except the various forms of carcinoma and sarcoma, with the most notable exception, the sarcoma myeloid, or giant-celled sarcoma.

By going over the list of the small tumors of the lower maxilla, which can be cured by gouging and enucleation, we find the following: Tumors, liquid, formed by serosity and the like, such as cystoma, serous; cystoma, mucoid; cystoma, dermoid, oily; cystoma, hydatid. Tumors, liquid, formed by

* A clinical lecture delivered at the Charity Hospital.

blood and serum, such as hematoma, varix, angioma, cystoma sanguineous, aneurism. Tumors, liquid, formed of lymph, as lymphangioma. Tumors, liquid, formed of pus; cystoma, purulent, formed by cocci or tubercle bacilli. Tumors, solid, formed by a foreign body, such as an encysted ball or invaginated sequestrum. Tumors, solid, formed of parasites; tuberculoma, syphiloma or gunma persistent, actinomycosis. Tumors, solid, formed of chronic inflammatory products—*i. e.*, cellulitis, indurated; periostitis; ostitis. Tumors, solid, formed of clotted blood—*i. e.*, hematoma, solidified or fibrinous. Tumors, solid, formed of so-called homogeneous tissues—*i. e.*, myxoma, lipoma, fibroma, myoma, chondroma, osteoma, odontoma, angioma solidified, neuroma, and lastly sarcoma myeloid, or giant-celled.

Small tumors cured only by partial resection are the other forms of sarcoma—*i. e.*, round and spindle-celled, small or large.

That sarcoma myeloid is curable by gouging and enucleation is most noticeable, especially when we remember that sarcoma, in a general way, is the most malignant of all malignant growths.

We do not here mention carcinoma and epithelioma, because the primary forms in bones are most rare, if they do, indeed, exist.

The diagnosis of sarcoma is made by a stroke of the gouge into the tumor, before resection of a small tumor. The peculiar and characteristic aspect of the section surface will at once give a good idea. A microscopic examination on the spot, also, after freezing the chipped portion, will often settle the point.

In case of doubt, proceed as if it were a benign tumor and gouge it out.

After the operation a more thorough examination, or an inoculation on a lower animal, will remove all doubts.

The advantages to the patient of having an entire jaw fully justifies and even commands that course.

At any rate, observe the operated spot closely, and as soon as any sign of a return manifests itself resect at once and resect unsparingly.

As to the situation of large tumors requiring partial resection, the following practical points are important:

Tumors requiring the *removal of the horizontal branch* of the

bone interfere very much with mastication, as most of the teeth are also removed with the bone.

Large tumors requiring the *removal of the vertical branch alone*, or along with a part only of the horizontal branch, call for disarticulation, and not section of the vertical branch with the saw, thus securing a greater chance against a return of the disease. The remote result is better because enough of the bone is left with sufficient teeth in it to be of good service in masticating. Very often, however, the remaining bone is deviated by the action of the muscles so that the lower teeth do not strike the upper ones properly when the jaw is closed, thus interfering seriously with satisfactory mastication. This condition requires the adaptation of peculiar contrivances, such as splints or props with springs to keep the bone in good position during the act of mastication.

Large tumors requiring resection, but *sparing the symphysis of the maxilla*, are more favorable, for reasons explained further on.

The operation itself brings forth the following peculiarities, special to itself or to operations on the mouth or face:

1. The *tongue* must be threaded with a strong thread. The thread must be stout, as a fine thread, though strong, may cut through like a knife. It must not be too close to the tip, as it might tear through. The traction must be gentle, as force might cause enlargement of the thread-hole without necessity. The use of this thread is to prevent the tongue from falling back into the pharynx, thus causing asphyxia and death; also to pull the tongue to one side or forward when necessary.

2. Thorough *uninterrupted anesthesia*, with the cone alone, is often impossible, because of the necessity of removing the cone to be able to operate, when the patient soon recovers from the effect and the operation has to be stopped to allow the cone to be replaced, etc. Hence the necessity of using a tube through the nose and an apparatus that will inject into the throat the vapor only of the chloroform or ether. Such an apparatus has been devised by the writer, which he has called the "anesthetizer," or "chloroform vapor injector." By its use the cone is done away with, the anesthesia is continued uninterruptedly, hence saving of time, of blood, of shock, etc.

Unruly patients who take the anesthetic badly, and can not be kept quiet so as to permit proper procedures, are in risk of losing their lives from hemorrhage.

3. The *arteries injured* in the operation are the facials and sometimes the temporal, the internal maxillary and the external carotid, the three latter when disarticulation has to be done.

When the disarticulation is difficult, there may be a good deal of loss of blood from these arteries, especially the external carotid. Preparations must be made beforehand to clamp the trunk below very quickly. For this purpose, disarticulation should not be begun until the bone has been sectioned by the saw and all the structures dissected away except those around the condyle. The tumor is then used as a lever and the condyle twisted around toward the knife. This must graze the bone all the time, when all is safe.

4. The *dissection of the flaps* must be conducted so as not to include the mucous membrane of the mouth until the last, as the blood may flow into the throat and larynx and cause trouble.

5. The *teeth* which might be in the line of the saw must be extracted, and, also, before the mucous membrane is sectioned.

6. The *bone* is then sectioned with the most convenient saw. Sometimes it is necessary to complete the section with the chisel and hammer, thus saving the extensive dissection which the use of the saw throughout would require.

7. Now comes the important procedure of inserting a *properly shaped silver wire* into the sectioned extremities of the bone. The wire has to be prepared in advance and must be properly fixed into the ends of the bone; it must be about an eighth of an inch in thickness. It is destined to support the soft parts by taking the place of the removed bone. The sectioned insertions of the genio-hyo-glossus muscle of the tongue and the frenum must be stitched to it firmly.

Tumors calling for the *removal of the vertical branch and of all the corresponding horizontal branch, but leaving in place the symphysis of the maxilla*, to which the genio-hyo-glossus muscle is inserted, do not require so imperatively the use of the wire, and the deformity which follows is much less marked than when the symphysis has been also removed.

8. The *mucous membrane* is stitched together over the wire so as to actually close the cavity of the mouth, then the skin is stitched under the wire, leaving a small gauze drain in the wound.

Complications secondary, are represented here by the possible

occurrence of edema of the glottis, due to any excessive swelling following the operation.

It must be provided for in advance by procuring a tracheotomy tube of extra length. An ordinary tube may be lifted out of the trachea by the increase of the swelling, thus baffling the effort at relief. Intubation of the larynx is preferable, but the same remarks also apply.

The results remote vary according to the amount of bone removed and the more or less perfect possibility of keeping up sufficient nutriment.

The silver wire is sometimes well tolerated, and should then be left in place permanently. If not well tolerated by the tissues it should be sectioned through an incision on the middle line and each piece removed separately.

Prothetic attempts have been made repeatedly to use red hard rubber jaws and the like, in place of the wire, and some cases have given very fine results in the hands of skilful, painstaking and ambitious dental surgeons.

However, in cases where the artificial maxilla is not tolerated by the tissues and has to be removed, the procedure amounts sometimes almost to an operation. The tissues having cicatrized firmly over it makes it more difficult to remove than might be supposed.

Clinical Reports.

THE WARM BATH TREATMENT IN A CASE OF CHRONIC HEPATITIS WITH ACUTE SYMPTOMS.

BY OTTO LERCH, A. M., M. D., PH. D., NEW ORLEANS.

In the December, 1897, number of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, I reported six cases of typhoid fever treated by this method, attributing 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 toxins and the waste matter through the natural channels, to its calming effect upon the whole nervous system without shock and without the slightest disturbance.

Considering the etiology of hepatitis, we find that alcoholism, infections and toxemias are the most frequent causes of this disease, and I took, therefore, the opportunity to treat this affection with the warm bath.

The patient, a lady about 40 years of age, born and raised in New Orleans, of good family, had suffered for years from constipation and occasional headache, the latter being especially severe before and at the time of her periods. During the last five years, she claims hardly ever to have been free from headache, and that this was sometimes associated with paroxysms, which she calls nervous chills. For these ailments she was treated by various physicians. She gives a history of overindulgence in wines.

In August, 1898, she was taken ill with nausea, vomiting and slight jaundice, especially of the conjunctiva. At that time she was in New York and was treated with tonics by a colleague who told her that her present ailment was due to the menopause. I was called October 21.

I found her in bed and suffering with excruciating headache, intense pain over the liver radiating to right shoulder, tongue furred and moist around edges, respiration exaggerated, temperature $104\frac{1}{2}$ deg., pulse 100. She stated that she had had fever for some time and a chill in the evening of every third day.

She complained of bitter taste, nausea and vomiting, itching, especially of hands, of a dry hacking cough and of night sweats.

Examination revealed: Herpes labialis, skin dry and icteric, conjunctiva deeply jaundiced; chest organs normal, liver enlarged, the smooth border could be felt about two fingers below border of ribs; spleen not palpable, no distention of abdominal veins, no edema, no exanthem, except the herpes labialis; urine of light color, contained about one-tenth of one per cent. of dry albumin and bile (Gmelin's test); feces hard, scybala partly discolored.

The blood was found normal in appearance, no plasmodia and the agglutination test* with the bacillus icteroides proved negative.

An appropriate symptomatic treatment being adopted, the next day I found her more comfortable. Headache and pain

*Archinard's.

less severe; pain localized about 3 inches below the nipple; no bulging or prominence over region of liver.

Morning temperature, 101; evening temperature, 102; pulse, 80.

Large doses of the muriate of quinin were administered, which had no effect on the temperature.

The 28th of October, Dr. P. E. Archinard, who was kind enough to see the patient with me, confirmed the diagnosis. Pulse rate and temperature had remained constant; albumin and bile also were constantly present, but had become less.

On the 31st of October, I was enabled to institute the bath treatment, administering the same twice a day; after this the temperature showed the first reduction, that is, 100 in the morning, and 101 in the evening. Her general appearance improved considerably, nervous symptoms less marked, almost free from headache; and on the 3d of November the urine was found free from albumin and bile. The icterus, which had lessened in intensity before, rapidly disappeared, as did the fever, by degrees, the temperature being normal on the 16th of November, and with it all other symptoms passed.

On the first night the case resembled one of yellow fever. There was very severe cephalalgia, a flushed face, hot and dry skin, restlessness and jactitation, high temperature and slow pulse, a moist tongue, coated in the centre, jaundiced conjunctivæ and icteric skin, nausea, vomiting, albumin and bile in the urine. The history of having had yellow fever, however, the examination of the blood giving a decidedly negative result with the agglutination test, and causing no dissolution of the blood corpuscles after some time, the course of the fever and the many other symptoms cited, eliminated the diagnosis of this disease. Malaria was suggested by the long residence of the patient in a malarial climate, and by the intermittent fever, accompanied by chills, which had preceded the attack.

The spleen not perceptibly enlarged, the negative result of a diligent search for the plasmodia and the quinin test were sufficient to exclude this malady.

It was evident that it was a disordered liver that gave rise to the train of symptoms enumerated, justifying, in my belief, the diagnosis.

The periodic headaches of some years' standing were proba-

bly due to the engorgement of a chronic congested liver at the monthly period.

The treatment was conducted on general principles partly and partially to meet the various symptoms. The malady being acute and implanted upon a chronic condition, absolute rest in bed and a mild diet were made paramount.

An absolute milk diet assures complete rest to the organ, and it is the only food that does it. Being non-irritative to the digestive tract, it lessens the digestive hyperemia of the liver, and as nature's food for the infant it is better prepared than all other foods; it requires but little activity of the organism for its digestion. Milk further acts as an intestinal antiseptic and reduces the process of fermentation in the intestines, found almost constantly associated with a diseased liver. For these various reasons it has been recognized by all writers, ancient and modern, as the basis of treatment in hepatic diseases.

In order to stimulate the capillary circulation, hot, moist applications were frequently made around the abdomen, with a view of lessening the congestion existing in the disordered organ.

Constipation contributing so largely to keeping the liver engorged was relieved by various laxatives, especially free salines, and of these phosphate of soda in large doses. Carlsbad and Vichy water were given. Calomel in minute doses given frequently during the day relieved the nausea, probably by lessening hepatic congestion, acting as a cholagogue, as an intestinal derivative and antiseptic. Enemas of one pint of cold water, given slowly from a fountain syringe, morning and night, were administered to increase the peristaltic action of the intestines and the secretion and the flow of bile as well.

Headache was relieved with tincture of *nux vomica* in drop doses, with small doses of phenacetin and caffeine and Hayden's viburnum, this preparation acting more promptly than any of the other remedies given in this case for this purpose. As there were symptoms of suppuration, the chloride of ammonium was given in ten and twelve-grain doses, three times daily, this drug being highly recommended by East India physicians as a prophylactic as well as a curative agent in inflammatory and suppurative processes of the liver. Before the institution of the bath treatment sponging with tepid water was freely used.

Though the treatment outlined was pursued from the beginning, as now and then called for, the immediate effect the methodical administration of the warm bath had upon the general condition of the patient, upon the temperature and upon the nervous symptoms, was so marked that I wish to repeat what I have said in the article cited above.

It is my opinion that the warm bath treatment causes amelioration of the disease and increases the chances of recovery in this and in similar diseases of auto-intoxication.

The temperature of the bath was regulated solely by the wish of the patient, very warm, otherwise it was given as set forth in the paper cited.

As to the cooling effect the warm bath has, it is interesting to note the observations of various investigators.

In his chapter on bathing, J. Lewis Smith (*Treatise on the Diseases of Infancy and Children*) makes the following statement:

“It may be well to add the recent remarkable statement of a high authority on thermometric observation and temperature, that during hot days a bath in hot water, employed in the hours of greatest atmospheric heat, tends to reduce the heat of the body and preserve its normal temperature during the remainder of the day.”

Wunderlich says:

“In tropical countries, and in very hot seasons, no means of cooling is so lasting as a bath or douche of very warm water.”

The after treatment consisted in a removal of the patient to the country, with directions for outdoor exercise, in a continuation of the milk diet, and the administration of the iodide of potash in small doses.

A CASE OF ANTHRAX (CHARBON).*

BY T. S. DABNEY, M. D., NEW ORLEANS.

On November 6, 1898, at 1 P. M., I was hurriedly called to see Daniel K., aged 40; native of this city. Examination revealed on the left side of his neck an oblong papule, an inch and a half in length by an inch and a quarter in width, with a depressed black centre surrounded by several rows of spreading vesicles

*Reported to the Orleans Parish Medical Society, November 26, 1898.

strongly resembling the cells of honeycomb. An extensive brawny edema extended from the left mastoid process across the face to the median line of the forehead, closing the left eye; down the left side of neck, pressing on larynx and esophagus, seriously interfering with respiration and deglutition and going as far down as the umbilicus, where it ended abruptly. The phlegmonous cellulitis of the chest was apparently several inches in depth and pitted on pressure. It bore a striking resemblance to the Roman *scutum*. The sore with its necrotic centre, its vesicular border, its brawny edema, its lack of sanies, pus, or pain, was so characteristic of malignant pustule that I did not hesitate on my first visit to tell the family my diagnosis. The character of the sore taken in connection with the occupation of the patient, that of an employee in one of the largest hide stores in the city, left no room for doubt, especially when it is borne in mind that charbon or splenic fever has been very prevalent in this and contiguous states the past year. It is further known that dealers in hides and wool in this country take scant, if any, precautions to protect their employees against this highly contagious and most malignant disease.

The following brief history was obtained: Patient had complained to his wife on the night of the 4th of a small inflamed sore on his neck, yet he went to work next morning and the day after in spite of her advice to seek medical aid. When I called in the afternoon of the 6th, I found the patient with a pulse of 120, respiration 40, temperature 102.5 deg., expression anxious, dyspnea marked, much difficulty in swallowing, mind clear. He stated that he had not slept a wink the past two nights.

The diagnosis being settled, the question of treatment became of paramount importance. Most gratifying results have followed prompt and thorough extirpation of the pustule and its contiguous poisoned area, but excision in this case was not deemed possible on account of the size and location of the sore, as well as the indisputable evidence of general systemic toxemia having already occurred. Nothing but local disinfection, the administration of serum, supportive and expectant treatment seemed left to me.

Koch has unbounded faith in the subcutaneous injections of weak solutions of bichloride of mercury; others believe equally in the efficacy of carbolic acid, whilst with many perman-

ganate of potash, applied locally or subcutaneously, holds the first place in this disease as well as in snakebite. The great oxidizing power of this remedy is probably the real cause of its value. I ordered a saturated solution of permanganate of potash, and the sore and surrounding parts were constantly swabbed with it. Quinin and Dover's powders were also ordered to lower temperature and produce sleep. Neither result being obtained, they were promptly discontinued next day. Wishing to give the patient the benefit of the very valuable knowledge of this disease acquired by our veterinary surgeons, who have had much practical experience with it, as it occurs in the lower animals, I called in Dr. Charles W. Heitzman, a man of learning, skill and experience. Dr. Heitzman considered the case a typical one of charbon. We ordered a mixture of chlorate of potash and iron and anti-streptococcic serum in 10 *c. c.* sealed bottles, P. D. & Co.

November 8, at 6 P. M. Pulse was 120, respiration 55, temperature 103.5. Patient very restless, no sleep previous night. Takes nourishment, strychnin and glonoin at stated intervals.

November 9, 10 A. M. Pulse 130, respiration 50, temperature 103. Very restless, mind clear. Injected 10 *c. c.* anti-streptococcic serum in shoulder.

November 9, 1 P. M. Pulse 100, respiration 40, temperature 100. Edema markedly decreased, patient breathes, swallows and feels easier. Continued local use of permanganate, kept up iron and chlorate of potash mixture and supporting treatment.

November 10, 10 A. M. Pulse 100, respiration 40, temperature 99. Edema steadily diminishing, patient feels and looks better. Dr. John Callan saw case in consultation with me from this time on till death ended the scene.

November 10, 12 M. Injected 10 *c. c.* anti-streptococcic serum. Patient becoming suspicious of everybody; mind wandering.

November 10, 6 P. M. Pulse 120, respiration 35, temperature 99. Edema decreasing, sore $3\frac{1}{2}$ by 2 inches, angry looking, feeble pulse, patient delirious.

November 11. Condition in the morning and at noon practically unchanged from day before. Refused to allow serum injection till 6 P. M., at which hour Dr. Isadore Dyer, our well-known dermatologist, kindly met Dr. Callan and me in consultation. The serum was injected, Doctors Callan and Dyer con-

curring in diagnosis and treatment throughout the entire treatment of this case. We were seriously handicapped by incompetent nursing. At 1 o'clock at night, on November 11, the patient climbed out of the window in his night shirt, and was not missed by his nurse until he was several blocks from home. He escaped in a similar way the following day. The nurses were friends of the patient, but they were utterly unfit for their task, and the patient resolutely refused to go to the New Orleans Sanitarium, or to allow a trained nurse in the house.

November 11, 6 P. M. Pulse very weak, 120; respiration, 35; temperature, 99. For past two days patient has been very unmanageable and unreasonable. At times he has been violent and has struck his attendants viciously, and has also attempted to bite and scratch them. His attendants allow him to have his own way.

November 12. Patient gradually getting weaker; centre of sore ready to slough out.

November 13. Patient died of heart failure at 4:45 A. M., on the tenth day of the disease.

It may be asked why anti-streptococcic serum was used instead of anti-anthrax serum.

Experience has taught that good results follow from using anti-anthrax serum as a preventive, but not as a curative agent—the reverse being the case with the anti-streptococcic serum. The microscope has shown that persons infected with anthrax bacilli frequently suffer from secondary infections. Although the patient died, the good results of the anti-streptococcic serum were most marked, and I honestly believe the patient would have recovered had he been taken, as I earnestly urged, promptly to the Sanitarium, where he would have had the benefit of skilful nursing.

My object in reporting this case to the society and through the columns of the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* is to direct attention to a disease which is scarcely mentioned in our text-books, and which, in consequence, is seldom recognized when met with.

Knowing that anthrax is regarded as very contagious in the old world and that the House of Commons of England has taken repeated action to protect the employees in wool, hair and hide factories from this infection, I can not see why we should enjoy

such apparent exemption from so contagious a disease. Dr. C. L. Bard states, in the *Southern California Practitioner*, 1894, page 121, in speaking of the ravages of the anthrax bacillus, that over *one hundred* cases of malignant pustule in man had occurred in Ventura county, California, alone, since the recognition of the disease up to the date of his paper, 1894, and he intimates that other deaths which had occurred in the outlying districts of the county might have had a similar though undetected course.

Dr. Charles E. Nammack (*New York Medical Journal*, Vol. LXVI, July to December, 1897, pp. 78-80) reports a very interesting case that was taken to Gouverneur's Hospital, New York City. This case had been diagnosed previously by three New York City physicians as simple phlegmonous cellulitis. The microscope revealed scores of anthrax bacilli.

An editorial in the *Medical News*, Vol. LXXI, January to December, 1897, pp. 306-307, is devoted to the occurrence at Dubois, Pa., of five cases, four fatal, of anthrax occurring among the operatives of the Falls Creek Tannery. One hundred thousand hides imported from Asia and infected with anthrax was found to be the source of infection.

M. LeRoy des Barres gives an account in the *British Medical Journal* under date of September 25, 1897, of an epidemic of anthrax occurring in a hide and wool factory near Paris, where 10 per cent. of the employees were stricken down—that is to say, there were seventy-two cases occurring among 720 operatives. This disease is very common in England under the name of "woolsorters' disease," while in Austro-Hungary, where it is equally prevalent, it is called "rag sorters' disease."

According to Dr. Charles E. Nammack, the bacillus anthracis is very tenacious of life, and can with great difficulty be destroyed. He goes so far as to claim that wounds have been infected with anthrax poison by catgut made from the intestines of sheep that had died from anthrax. When you reflect upon the many processes this catgut undergoes before it is ready for the surgeon, as sterile and aseptic sutures, you stand aghast. Be this as it may, it is a fact disputed by none, that infected hides, wool, hair, or tails, are disinfected with great difficulty, if at all.

Formol is said to be of no avail.

In view of the above facts I can not believe that malignant

pustule is as rare as our hospital and Board of Health reports would lead us to infer. A rather careful look through the incomplete reports of the Charity Hospital from 1875 to 1897 fails to find a single case treated in that institution. As Louisiana has never had a State Board of Health, so far as vital statistics are concerned, no statistics are available outside of the parish of Orleans, and none worth anything for that parish.

The statistics of our State (or parish) Board of Health show but one death from this disease, and that one the subject of this paper. With charbon epizootic all around us, it is impossible to credit such statistics. Reasoning by analogy we are forced to the conclusion that many cases of anthrax must have died in private practice, as well as in our public institutions, under the diagnosis of erysipelas, cellulitis, carbuncle (ordinary), blood poisoning, etc. In all doubtful cases cultures should be made and sent to a bacteriologist, who can readily detect the *bacilli anthracis* if the case be one of malignant pustule.

The appearance of anthrax in man has long been known. It was well known amongst the early Greek and Roman physicians.

In the sixteenth and seventeenth centuries a number of writers were firmly of the opinion that the contagium vivum was conveyed from beast to man by flies—especially the blue bottle variety, whose proboscis is especially penetrating. Bollinger, writing in 1875 (Ziemssen's *Cyclopedia*, etc.), acknowledges that this is unquestionably *one*, but not the main, means of communicating the disease. Perhaps the oldest authentic account of the fly being the probable cause of the transmission of anthrax (or any other disease for that matter) will be found in Exodus, Chapters VIII and IX. Chapter VIII is devoted to the swarms of flies that visited the houses of the Egyptians, and not those of the Jews who dwelt in Goshen * * "The land was corrupted by reason of the swarm of flies (Ex., Chap. VIII, verse 24)." In the next chapter (IX) the disease is well described, and by reading verse 3 it will be seen that then, as now, it was limited strictly to the *herbivora*.

Not a case of the disease occurred in Goshen, as not a fly had visited that land. What right to priority have Bacelli, Manson, Koch, V. C. Vaughan, Shakespeare, *et als.*, in insect

transmission of disease. Let them, one and all, acknowledge they owe their imaginary idea to Moses.

Returning to the subject proper, we must, according to Zeimsen, acknowledge that we are especially indebted to the French physicians and veterinarians for their researches into anthrax in man, notably to Fournier, 1769; Montfils, 1776; Thomassin, 1780; Chabert, 1780.

To France, also, do we owe practically all that we know of inoculating against charbon, or "pasteurization," as it is called in honor of him who taught the world how to attenuate a virus and its prophylactic value.

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REMOVAL OF HYDROCEPHALIC HEAD BY CESAREAN SECTION.

By F. G. RENSCHAW, M. D., PENSACOLA, FLA.

The operation of abdominal section and of hysterotomy for various pathologic conditions, both idiopathic and traumatic, are performed by many surgeons in general practice, but the specialist, with his perfect hospital equipments and thorough knowledge and experience in the application of the proper technic, scores a greater number of successes; hence, I take pleasure in recording my achievement in the performance of this, one of the most serious operations known to surgery, with all the unfavorable environments which attend usually such a procedure in an humble home.

I shall submit my case without reference to the history of *sectio cesarea*, which antedates the Christian Era, when the ancients were swayed by their particular or peculiar religious and moral ideas and ignorant as to methods of its scientific performance. Retrospection confronts us with a vista radiant with the glitter of scalpel, hallowed by the science of antisepsis, shedding a lustre of prowess on abdominal surgery, which gives to us a greater assurance; hence bringing this operation within the scope of an elective rather than one always of necessity.

At 5 o'clock on the evening of the 22d of June, 1897, I was called to see Mrs. W. H. (white), age 32, the mother of seven children, living on the outskirts of this city. She had been in active labor for several hours. An examination revealed the lower extremities and trunk protruding, the shoulders within the pelvic outlet, the head within the uterus, and, according to the midwife, had been in this condition for three hours.

My diagnosis was hydrocephalic infant. I applied obstetric forceps, with a view of compressing the head and effecting delivery, but was unsuccessful. The pulsation of cord had ceased some time before my examination, as might have been expected in consequence of the great pressure on it. So I unhesitatingly severed the body from the head as near the *foramen magnum* as possible, that I might have more room for manipulation. The uterus bore down strongly, and again forceps were applied, but the size and yielding condition of the head prevented the successful mechanism of delivery by this method. The use of the

blunt hook likewise proved futile. The large head, firmly grasped by the uterus within its precincts, bade defiance to all methods employed, while powerless to relieve itself.

My conclusion was, then, to do the operation of abdominal section. With the aid of my assistants an impromptu operating table was soon in readiness and necessary illumination provided. The patient thoroughly cleansed with ordinary soap and water, and subsequently the field of operation rendered as aseptic as possible under the circumstances by carbolic solutions. Chloroformization was begun and in a few minutes, after catheterization, the patient was ready for the knife. On the median line I made an incision extending from a point one and one-half ($1\frac{1}{2}$) inches above the crest of pubis to a point two (2) inches above the navel. The intestines were carefully protected from mechanical injury and atmospheric influences by towels rinsed out in hot water. On incising the uterus great care was taken by one of my assistants that the fluids would not escape into the abdominal cavity, by firmly compressing the abdominal parietes against the uterus. Of course, the cervix uteri was grasped firmly before the incision, seven (7) inches in length, was made in its longitudinal axis. The cranium appearing in the field of incision was then punctured, the fluid escaping; then the collapsed head was removed without difficulty. Cranial dimensions were: Biparietal, $7\frac{1}{2}$ inches; bitemporal, $6\frac{1}{2}$ inches; bimas-toid, 6 inches; occipito-mental, 9 inches; occipito-frontal, $7\frac{1}{2}$ inches; fronto-mental, $5\frac{1}{2}$ inches; cervico-bregmatic, $6\frac{1}{2}$ inches; sub-occipito-bregmatic, $6\frac{1}{2}$ inches.

The removal of placenta was facilitated by manipulation with the usual uterine contractions, with much less hemorrhage than is usually observed in a normal parturition. Of course, the cervix uteri was held in the grasp of an assistant during this delivery. A thorough irrigation with very warm water was followed by suturing, which was done with silk. The uterine wall was coaptated by interrupted sutures passing through the thickness of the wall (peritoneal and internal covering); the abdominal incision was also closed with silk sutures. After treatment consisted of nine (9) grains of quinin a day, vaginal douches, twice daily, with a bichloride solution, 1 to 1000. For the first week catheterization was done every four hours and no nourishment, either in liquid or solid form, was given for

four days after the operation. Water was given *ad libitum*. The temperature, etc., chart needs no place in this *resumé* in consequence of its length, but suffice it to say that the temperature at no time was above $102\frac{1}{2}$ deg., the patient being discharged on the 12th of July, ninety days after this operation, and since has been enjoying excellent health.

You might ask me why craniotomy was not resorted to as the next means to effect its removal. I will answer that from personal experience, after having resorted to this method of delivery, my convictions of its crudeness and danger force me to repudiate such measures, firmly believing both from a surgical and moral standpoint that modern antisepsis argues the clean incision as the elective procedure under all circumstances where the contractions of the pelvic outlet, or the abnormal proportions of the fetal head are such that the reasonable and safe use of forceps render it questionable as to results, either to mother or infant or both. Compare the danger of puerperal septicemia with its fatality, if not the train of pelvic pathologies, resultant, not taking into consideration the lacerations and rents which entail pain and displeasure and even are deterrent at times to exercise of the sexual instincts, all of which, in many instances, is a legacy of evisceration, embryotomy and craniotomy.

ENTEROPLASTY BY THE HEINEKE-MIKULICZ METHOD FOR THE RELIEF OF A STRICTURE IN A CASE OF STRANGU- LATED HERNIA.

By F. W. PARIHAM, M. D., PROFESSOR OF CLINICAL AND OPERATIVE SURGERY IN
THE NEW ORLEANS POLYCLINIC, NEW ORLEANS

Mrs. S., of this city, was seen by me in consultation with Dr. Graner, her attending physician, at the New Orleans Sanitarium, on Monday, October 31, 1897. She had had for some years a reducible inguinal hernia, which had never until the present instance given her any serious difficulty in replacing. She had worn a truss, but had left it off for a few days before this trouble occurred. On Friday, October 28, she had failed to get the bowel back after considerable effort. She began to have pain in the part very soon and called in Dr. Graner, who recognized the nature of the case at once and made an effort to reduce it. In spite of local applications the pain continued to grow worse. He

telephoned me the facts and asked my advice. I advised that she be sent at once to the Sanitarium, where I saw her about 4 P. M., Monday, October, 31.

There was a small tumor in the left inguinal region about the size of a hen's egg, painful and tender on pressure, having all the characters of a hernia, which the history confirmed. As much time had elapsed since the first symptoms of strangulation, we determined to operate without delay. The usual incision was made and the sac opened.* A knuckle of bowel was found as black as tar, apparently already gangrenous. I cut the constricting band and waited to see if the gut would brighten up with the returning arterial current. It very soon became evident that it would survive, but another difficulty now presented itself. The constricting band at the inguinal ring had made a deep groove in the wall of the intestine and the inflammatory exudate poured out into its structure seemed to hold the lumen so rigidly contracted that I seriously feared the stricture would be permanent and give rise ultimately to fatal obstruction. I made an incision at right-angles to the circular indentation and about three inches in length, and, grasping the mid-point of each side of the wound with a pair of artery forceps, pulled the lips apart until the two ends of the original incision approached each other, thus bringing the edges together transversely across the bowel. The sutures were put in in such a way that the extremities of the original incision were first brought together. The edges of the transversely running wound being now held in apposition by pulling well on the forceps, the other sutures were easily and quickly introduced. I employed a modification of the typical Lembert, carrying the needle in about a quarter of an inch from the edge on one side, bringing it out through the free edge between the mucous and muscular coats (as practised by Halstead), then entering the needle on the opposite side, just avoiding penetration of the lumen of the bowel as before, and bringing it out through the serous surface a quarter of an inch from the edge. A few more sutures, taking up the peritoneum further out, were put in to insure against leakage, the coil dropped into the cavity, and the abdominal wound closed for radical cure. A small piece of gauze was put in the lower end for drainage. This was

*The external iliac vein was punctured, but a lateral ligature effectively stopped it.

removed next day. The longitudinal wound bled so profusely from both edges that I felt sure the gut was safe from sloughing. She did well after the operation except as to the stomach, which was very irritable, only yielding to repeated washings with the bicarbonate of soda solution through the stomach tube. There was some subcutaneous suppuration, which did not in any way mar the final result of the operation. I have just seen her to-day (December 17), six weeks after the final operation, and find the general and local condition all that could be desired. There is a linear cicatrix except at the point where the opening for evacuation of the abscess was made. The truss, which was worn for a time, has been ordered discontinued, as there seems to be no tendency to ventral hernia.

The procedure carried out in this case is essentially the same as the pyloroplasty, independently conceived by Heineke in 1886 and by Mikulicz in 1887. The procedure has, I believe, a wide field of usefulness in the surgery of the intestinal tract, especially in all forms of non-malignant stricture and in gunshot wounds too large for simple suture, and yet not involving enough of the wall to demand a resection. It may also be employed for kinks and twists, perforating ulcers and resections of portions of the visceral wall, as in hernia, or old fecal fistula (Abbe). For innocent strictures of the bowel, Jacobson (*Operations of Surgery*, 1897, p. 880) cites two cases of H. W. Allingham (*Lancet*, Vol. 1, 1894, p. 1550). Practically the same operation, however, is described by Abbe in the Supplement to Wood's Handbook, 1893, p. 536, where he speaks of a case in which he avoided the alternative of resection or artificial anus for a gangrenous ulcer produced by strangulation of the bowel in the sharp inguinal ring. Abbe splits the bowel an inch and a quarter in each direction from the perforation, and, bending the bowel, makes an elbow at this point, turning the ulcer in and stitching the cut edges together. This amounts to the same thing as a longitudinal cut about three inches long, and suturing the wound so as to make a transverse apposition of the edges. Necessarily, the bowel bends in doing this. The same principle of technic is carried out in Duke's operation for restoration of the perineum, and in the operation for shortening the scrotum in cases of varicocele, where, after doing excision of the veins and tying the stumps together, the vertical incision

is sutured so as to lie across the scrotum, thus shortening it just in proportion to the length of the incision (first called to my attention by Dr. Parker, of this city). But it is for such conditions as that described in the case related that it is especially applicable, and which it was the purpose of this paper to call attention to. It is an admissible operation for assuring the permanency of the lumen. Gould has, in commending it for cicatricial stenosis of the pylorus, urged a further argument in its favor, drawn from the observation of cases of Dupuytren's contraction, in which, after section of the fascia, "not only is the shortened fascia lengthened, but the indurated tissue softens down, and all signs of the malady may disappear." So that the tendency in these operations where new tissue is introduced into the site of the original cicatrix is not toward reproduction of the stricture, but rather toward greater pliability. The procedure is, therefore, not to be regarded in the light of a temporary expedient, as is the case with such operations as Loreta's digital divulsion.

NOTE.—The use of the Laplace clamp forceps, I believe, will facilitate the performance of this operation.

Clinical Lectures.

PHYSICIAN OR SURGEON?

BEING A SERIES OF NOTES TAKEN IN THE PHILADELPHIA CLINICS.

FOR DIAGNOSIS.*—I bring before you a woman of nineteen, married nine months ago. Her menses have been somewhat irregular and copious. She was admitted eight days ago to the hospital. Four days previous to that, while washing windows, she was seized by a pain in the lower left abdominal region. She had cramps and tenderness, this extending to the right side, and finally throughout the abdomen. There was diarrhea, vomiting, headache, something like chills, and fever. Temperature on admission was 101 deg, since rising to 103 deg., and at one time to 104 deg. When she was received I examined her to decide whether it was a case for the medical ward or for the surgical department. The abdomen was rather full, and between the umbilicus and anterior superior spine of the left side

* Lecture of Prof. A. V. Meigs.

was a very tender spot. Around this was increased resistance of the belly wall. Lungs, heart, liver and spleen were negative. I decided it was not a case for the surgeon, and upon treatment to be outlined she is now about well. There is no pain, no tenderness, and the pulse is about normal.

These cases are difficult to decide. Here was a woman sick, with certain symptoms, yet we could not tell what ailed her. Some would say make explorative incisions, but this can not be done without some hurt. There is always some risk, and the belly wall is never so strong as before being opened. I do not believe in exploratory operation unless absolutely a necessary proceeding. Yet the physician is talked about and held responsible if a patient dies under such circumstances and has not been given the benefit of an operation. The surgeon seems more free from blame. If he explores and finds nothing there has been no harm done, at least. Exploratory opening of the abdomen is an abomination unless the exigencies of the case make it imperative.

I believe this woman had irritation of the left ovary. This is more liable to occur in the newly married. If it occurs again it may be time to think of an operation.

The treatment was as follows: She was kept in bed and put on liquid diet, which here means milk. Every two hours she was given $\frac{1}{12}$ gr. of extract of belladonna and $\frac{1}{4}$ gr. of powdered opium.

In this connection let me say that this is a large enough dose of opium to give and keep giving to soothe a patient. One-quarter of a grain may be given with safety every two hours for three or four weeks to an adult without making him stupid or contracting the pupils. Ten drops of laudanum may be given in place of powdered opium if desired. If there are occasional attacks of severe pain, this dosage may be supplemented by a one-grain opium suppository at night, or a few drops of laudanum or paregoric when the pain is acute for a short time. With the amount first mentioned you know you are safe, while with larger amounts you are not sure.

Speaking of dosage, I will mention the treatment of malarial fever in connection with this next patient. She is getting sixteen grains of quinin per day. It is pretty definitely settled that quinin damages the ears and eyes if given in too large

doses. Give four grains four times a day for three days. Then drop one dose and give four grains three times a day for two days. Then give four grains twice a day, and this can be continued indefinitely. If at any time the severe symptoms recur the dose can be increased again. I am not speaking for other climates, but for Philadelphia, this is enough.

A FUTILE OPERATION FOR JAUNDICE.*—I wish to give the result in a case shown one week ago. The patient was a woman of 47 with the history of several attacks of abdominal pain accompanied by jaundice. One year ago she had pain over the gall bladder with jaundice which passed away in one day. Five months later she had a second attack. During this she had severe cramps, diarrhea, vomited watery material, and was jaundiced for one month. Seven days before coming to the hospital she had the third attack. She had cramps for three days, constipation, jaundice which has lasted until the present time, which has been between two and three months. She has lost flesh, had violent pain at times, some fever. The liver is enlarged. These symptoms suggested gall-stone and the orthodox treatment for this trouble was given, but the woman became no better. She begged for relief and four other physicians and surgeons suggested operation. I decided that it was a case of chronic hepatitis and was not in favor of operation. But with so many against me and thinking that the woman might die of the trouble, I finally decided to give her the chance. She was operated on five days ago and no gall-stones were found. The liver is very much enlarged and covered with dirty, yellowish-white spots. I believe it to be a case of Charcot's hypertrophic cirrhosis. It might possibly be cancer.

The lesson from this case is this: Such symptoms as pain, fever, and jaundice do not necessarily mean gall-stone, and much less impacted gall-stone. My own opinion is that in the majority of cases there is not an impacted stone. Such symptoms arise when there has been no stone. These cases often recover without operation. If this had been a transient case I would not have suggested an operation, as even those who did suggest it would not say they were certain of gall-stones. It was impossible to be sure of such being the case from the symptoms. Many physicians look too lightly on such operations.

*Lecture by Prof. A. V. Meigs.

They say that with the mortality of abdominal operations so very low, an incision is of little moment. They say "if there is no cause for it there is no harm done, at least," but there is a risk in all such proceedings and one must weigh this carefully. I do not believe in operation, as a rule. Give attention to regulating the bowels, give mercurials, the phosphates, etc.; in forty out of fifty cases, hepatitis will be found to be the cause of the trouble.

OPERATING IN A CASE OF JAUNDICE.*—The case was shown in the clinic at Jefferson Hospital, on November 10, with the following history and symptoms. The patient was a man of 34, a flagman. On April 2 he was seized with a violent pain in the hypochondriac region of the right side. This lasted for three days, being accompanied by vomiting three or four times a day. In short, the man had a typical attack of biliary colic. Four weeks after the attack jaundice came on, this being intense at the time he was shown at the clinic. There had been dull, persistent pain at times since the first attack. There was no cardiac or lung disease, no digestive disturbance of note, and the man's general condition was fairly good. It was a supposed case of gall-stone, and the patient was to be kept in bed, hot fomentations applied, an abundant liquid diet given and hot Vichy or other alkaline waters administered. No drugs were to be given, and if a change for the better did not come in one or two weeks a surgeon was to be consulted.

On November 23, the man was operated on by Dr. W. W. Keen. The jaundice still persisted, and the patient's condition was getting to be such that operative interference was indicated. The gall bladder was distended to nearly the size of a goose's egg, and when opened was found to contain bile of an intensely black color. Search was then made for gall stones. None were found in the bladder. The incision was enlarged after the sense of touch failed to find any obstruction in the ducts, and a thorough search by the aid of electric light was made. This also failed absolutely, no sign of gall-stones being found. None of the surrounding viscera were abnormal so as to cause obstruction by pressure. But obstruction there had been, as was evidenced by the jaundice and by the distended gall bladder. The wound was closed with the exception of a biliary fistula, which

* Lecture by Prof. W. W. Keen.

was made pending the further outcome of the case. An examination of the bile was made, and this was found to be sterile—a point of great relief to the operator.

On November 30 it was reported that the man was doing very well. There had been no sign of peritonitis, which was very much feared at the time of operation. The color of the patient was clearing up and the urine was also losing its dark color. On the day preceding the feces for the first time lost their absolute clay color and showed unmistakable signs of containing bile. This all went to bear out the fact that there had been no gall-stone, which was the forced conclusion at the time of operation.

EXPLORATORY INCISION IN DOUBTFUL TUMOR.*—The case was one of a colored woman, twenty-nine years of age, married eight years ago. Two years ago she noticed a lump about one-half an inch in diameter in the lower and outer quadrant of the right breast. This has increased in size until it is now as large as a hen's egg. Pain is felt at night and during the monthly periods. There has been no invasion of the axillary glands, no loss of weight, and there is no cachexia present. The question here is a diagnosis between carcinoma and non-malignant growth. Carcinoma rarely comes on before forty, so the inference here is against it. But I have removed one from a patient twenty-seven years of age which recurred in one year and proved fatal. They are found in the rectum of patients under thirty years. Carcinoma starts insidiously and grows rapidly, as is the case here. Cancer rarely gives pain at first. This has been painful and tender to the touch. Cancer is usually firmly anchored to the breast while this is not. This is a point where a mistake is very apt to be made if dealing with a pendulous breast. The examiner must determine if the tumor alone is movable or if the breast also moves. The axillary glands are not involved, but it is not always possible to notice these before the skin is opened. No cachexia is present, but this would not be expected in such a length of time. The arguments against carcinoma are strong, but there are enough favoring it to make the case a doubtful one. The tumor is probably a fibro-adenoma. These are apt to become cystic and undergo a rapid growth which thus simulates cancer. Senn and Sutton maintain that there can not be a true fibroma of the breast, but there are

*Lecture by Prof. J. C. DaCosta.

always acini in the mass which are extremely liable to give rise to the formation of cysts. Now this tumor, if malignant, had far better be left alone than taken out as a fibro-adenoma. I shall make an exploratory incision out of the line of incision for further operation if this is necessary. The tumor is hard but elastic, and surrounded by a capsule. A section of it shows it to be a fibro-adenoma which has undergone a malignant change. I shall sew up the incision, wash the breast again and with a different knife do the Halsted operation for removal of the breast. I believe strongly in exploratory incision in these doubtful cases. The operations are so radically different that justice to the patient demands that all means be used to make a correct diagnosis.

RICE HULL IN THE EYE FOR TWO WEEKS.

FROM A CLINICAL LECTURE BEFORE THE NEW ORLEANS POLYCLINIC BY HENRY DICKSON BRUNS, M. D., PROFESSOR OF DISEASES OF THE EYE.

This case is of especial interest in one way only. It strikingly illustrates a racial peculiarity. It has other points of interest, but it demonstrates what we must expect in dealing with the negro—the most careless, improvident, happy-go-lucky, long suffering, apathetic, emotional, pleasure-seeking race in the world; and here in the South we have him and his diseases always with us. If you look well at this boy you will see that his right eye is perfectly healthy, but on his left eye, near the cornea, you will see a red spot supplied by a long leash of vessels. You note a condition that might be taken for one of two things. This is either a phlyctenule, or a marginal ulcer—or something else! I do not think it is a phlyctenule, because it is not white, but dark yellowish-brown; nor is it shaped like a phlyctenule, it is not rounded but long, the long axis lying along the corneal margin. It is not an ulcer, because looking at it closely in an oblique light it is seen not to be excavated, but slightly elevated, the elevated part lying in a pit or shallow groove that surrounds it. It is a narrow, very thin foreign body, and the moat that surrounds it is due to ulceration because it has been there two weeks. It is remarkable that a human being would go around with a thing like that in his eye for two weeks and not either get it out or commit suicide, but that is characteristic of the race.

This case, of course, will be very rapidly cured by putting a little cocain solution in the eye and wiping it off with a little

absorbent cotton, twisted on the end of an applicator; or, if it can not be detached in that way, by means of a blunt needle or spud. Foreign bodies which have been long embedded in the cornea are usually easily removed because an opportunity has been afforded for ulceration, nature's tedious method of removal. You can nearly always wipe them off with the cotton tipped applicator by making a rapid dip or dive down upon them. (Here the body was removed.) This is the usual foreign body that remains long in the eye and totally baffles the efforts of the amateur to remove. It is a small piece of dirty rice-hull. Small bodies, such as bits of chaff or the wing-cases of small beetles, when they get into the eye, apply themselves closely to the ball, become covered with a little mucus and are then difficult to remove. In the North, East and West the chaff is that of wheat or oats; with us, that of rice. When such a body gets up into the superior cul de sac it gives rise to intractable conjunctivitis. Monocular conjunctivitis, of some duration, is always suspicious. You will avoid many an awkward mistake by always searching such an eye for a foreign body (and all other primary causes), even passing a Daviel's spoon up along the superior cul de sac if you can not expose that portion of the conjunctiva to view by forcible eversion of the upper lid. When these bodies are closely applied to the cornea it is often hard without close study with oblique light, to be sure you are dealing with a foreign body and not with a pimple, infiltration or opacity. Sometimes it is necessary to touch them, happily a small matter in these days of cocain, before you can be absolutely sure. I made the successful attempt to remove this body without cocain, because it might be important to you if you had such a case and no cocain to know how to proceed. Put a towel over the patient's hair, as I did, stand behind him and let him rest his head against you; raise the upper lid with your left forefinger caught under the edge of the upper lid, so that it can not be closed. You will observe that every time you touch the cornea the patient rolls his eye up. Anticipate this, and make your little dips or dives at the body from above it, so that the rolling of the eye upward will carry the body up against your cotton-tipped applicator or spud and lead to its detachment. This boy can now be discharged cured, for a little hot water bathing of his eye will soon make it well. In young people these little abrasions heal readily.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

FOR THE NEW YEAR.

When last we wished our readers a happy new year, we took occasion to advise action by the profession on certain lines affecting the general welfare as well as that of the profession itself.

We are glad to realize that some of the questions have been settled with fair results. The most important, that which includes all the others, yet deserves to be specially considered by the physicians of this section of the country—namely, thorough union of the medical profession.

As a step in the right direction it would be important that no further delay be allowed in reference to the reorganization of the State Board of Medical Examiners. This important body was created by law only after great efforts on the part of the Louisiana State Medical Society, nevertheless it is a painful fact that at present it is practically in a state of innocuous desuetude. Its president and its vice president have both resigned and have had their resignations accepted; its secretary is simply holding office after an expired term until his successor, be it himself or another, is appointed, and this in a board composed of five members.

The Governor is not responsible for this State of affairs, as he is not empowered to act except after names are submitted by the State Medical Society. Hence the latter or its officers must be held accountable for the fact that we are to all purposes without a Board of Examiners. This condition should be corrected at once, and we hope that the able president of the society will take immediate steps toward the furnishing of necessary lists of names to the Governor.

With an active Board of Examiners, proper backing by the medical profession at large would not long be lacking. With

the Board of Examiners strictly attending to its duties, membership and strength would both increase in the State Medical Society, and with a strong medical society, union and organization of the medical profession would be almost an accomplished fact.

We acknowledge the latter to be one of our hobbies. Having urged it editorially at the beginning of last year, having referred to it again at the end of last year, we once more wish to dwell upon it as we begin this year and as we wish you all much prosperity and many other blessings.

THE DANGERS OF THE BARBER SHOP.

The Board of Health of Quebec has issued instructions directed at the barber shops in that province, and these carry suggestions of so practical a character that we have reproduced them elsewhere in this number.

In publishing the report of the Quebec Board of Health, the *Canada Medical Record* makes editorial comment, which we are glad to note.

At the last session of the Louisiana State Legislature the progressive barbers of New Orleans had a bill introduced, directed at restricting the practice of their trade, and of improving the quality of their service by specific and intelligent qualification.

The spirit of the desired legislation did not appeal to the wise lawmakers, so the bill was defeated. Without the appreciation of the need for hygienic care in the barber shop, both among the barbers themselves and the public who patronize them, there can be no improvement in this regard.

The menace to every customer is great and the elements of danger are considerable.

Bulkley, in his "Syphilis Insontium," instances several cases of syphilis contracted in this way.

Barber's itch and folliculitis are of too common occurrence to need more than mention of them. The chiefest ground of danger lies in the promiscuous use of the comb and brush and the hair-cutting scissors.

Elliot, of New York, claims that fully 90 per cent. of baldness is due to dandruff. With Muller, of Cambridge, Mass., he

demonstrated the contagious nature of seborrheic dermatitis, the most frequent cause of dandruff, and in 1893, elaborately demonstrated the morococcus responsible.

The frequent occurrence of dandruff, the promiscuity among members of the same family in the use of brushes, and the accepted contagium are attributable almost directly to the male contingent of the household, who find the source of the original infection in the barber shop.

It will be a slow process to educate the barbers, but by educating the people, this could and would be accomplished.

The action of the Quebec health authorities deserves commendation, and the example is good enough to be followed by our own Board of Health and other like health guardians.

SHALL THE EXCHANGE LIST GO?

In a recent number of the *Philadelphia Medical Journal* the editor announces that after January 1, 1899, the journal in his charge will no longer exchange with other medical periodicals.

The reason advanced is quite just and more apt, and it is in all respects in keeping with a business-like commercial enterprise.

The *Philadelphia Medical Journal* has posed, however, since its origin, as a journal for physicians and as a champion of medical education, and all its congeners.

We shall be sorry to see it fall back in even this one regard.

No one other factor in the medical education of medical men has been more potent than the circulation of medical knowledge from one country to another, or from one section of a country to another. Knowledge in medical lines has spread mostly through the medical press, and the medical press has survived until now because of the *con amore* spirit which has been paramount to the business interest in the best of them.

We are not denying the right or the justice of Dr. Gould's intention, but we are drawing conclusions.

The *Philadelphia Medical Journal* has arrived at this decision from its conclusion that the system is a bad one, and that journals should not be parasites of other journals.

This action will not destroy the exchange system, for it is too well established to be broken without some concert of action, and such concert of action will not be had for some time to come.

Medical News Items.

THE ORLEANS PARISH MEDICAL SOCIETY, at its meeting of December 10, held the annual election of officers for 1899. The election resulted as follows: President, Dr. Isadore Dyer; first vice president, Dr. E. Denègre Martin; second vice president, Dr. T. S. Dabney; third vice president, Dr. Wm. Scheppegrell; recording secretary, Dr. Hamilton P. Jones; treasurer, Dr. J. A. Storek; corresponding secretary and librarian, Dr. S. P. Delaup. At this meeting Dr. H. P. Jones and Dr. H. B. Gessner related interesting experiences in a medical way of their connection with the army during their recent service. Mr. Wm. Beer, the librarian of the Fiske Public Library and the Howard Memorial Library, was elected annual orator for the meeting of installation in January.

THE GULF COAST MEDICAL SOCIETY was organized on November 10, we read in the *Journal of the Mississippi State Medical Association*. Dr. J. K. McLeod, of Moss Point, was elected president; Dr. J. J. Washington, of Pass Christian, first vice president; Dr. R. J. Turner, of Bay St. Louis, second vice president; Dr. O. L. Bailey, of Ocean Springs, secretary. A resolution was adopted giving as the sense of the society that a national quarantine system, under a department of public health, should be established. A resolution was also passed inviting the medical societies of Mobile and New Orleans to attend the meetings.

THE GRADUATING EXERCISES OF THE CHARITY HOSPITAL TRAINING SCHOOL FOR FEMALE NURSES took place in the A. B. Miles amphitheatre, on Wednesday, December 14, 1898, at 2:30 P. M. There was a large attendance. Addresses were made by the officers of the Hospital and reports were made by the superintendent of the school and by the faculty. The occasion was successful, and several graduates were added to the list of those already from this school.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION held a successful meeting in Memphis, December 6, 7 and 8. A number of interesting papers were read. The following officers

were elected for the coming year: President, Dr. Joseph Taber Johnson, of Washington, D. C.; vice presidents, Dr. F. W. Parham, of New Orleans, and Dr. W. L. Robinson, of Danville, Va.; treasurer, Dr. A. M. Cartledge, of Louisville; secretary, Dr. W. E. B. Davis, of Birmingham. New Orleans was selected as the next place of meeting in November, 1899. Dr. E. S. Lewis, of New Orleans, was appointed chairman of the committee of arrangements.

THE LOUISIANA STATE DENTAL SOCIETY AND THE SOUTHERN BRANCH NATIONAL DENTAL ASSOCIATION will hold a joint meeting in New Orleans in February. The indications are that there will be some 300 dentists from the several sections of the country, especially as the sessions are to be held about the time of the carnival.

AN INTERNATIONAL CONFERENCE FOR THE PROPHYLAXIS OF SYPHILIS AND VENEREAL DISEASES is projected, to be held in Brussels, Belgium, in the middle of September, 1899. Communications have been addressed to all syphilographers and those interested in these public questions, with a view to making the conference as valuable as possible.

INTERNATIONAL ARCHIVES OF LEPROSY.—As a result of the valuable sessions of the Berlin Lepra Conference, Drs. Besnier, Dehio, Hansen, Hutchinson and Neisser propose to establish a series of publications, drawn from the observations of leprologists all over the world, to be published in English, German and French. Subscriptions to the "Archives" are to support the work and pay the cost of publication. All desiring to subscribe should address Prof. Albert Neisser, Breslau, Germany, Museumstrasse 11.

THE SOUTHERN MEDICAL COLLEGE ASSOCIATION met in Memphis last month, with delegates present from all the members of the association, except the Texas Medical College, of Galveston, and the Southern Medical College, of Atlanta. Dr. G. A. Ketchum was elected president, Dr. C. Thompkins, vice president; Dr. G. C. Savage, secretary. It was decided that every student matriculating after January 1, 1899, in one of the colleges embraced in the association would have to follow a four years' course, in order to be eligible for graduation.

THE PRESIDENT OF THE BOARD OF MANAGERS OF CRAIG COLONY offers a prize of \$100 for the best contribution to the pathology and treatment of epilepsy, originality being the main condition. The prize is open to universal competition, but all manuscripts must be submitted in English. All papers will be passed upon by a committee to consist of three members of the New York Neurological Society, and the award will be made at the annual meeting of the Board of Managers of Craig Colony, October 10, 1899. Each essay must be accompanied by a sealed envelope containing the name and address of the author and bearing on the outside the motto or device which is inscribed upon the essay. The successful essay becomes the property of the Craig Colony, for publication in its Annual Medical Report. Manuscripts should be sent to Dr. Frederick Petersen, 4 West Fiftieth St., New York City, on or before September 1, 1899.

THE ARCHIVES OF PEDIATRICS closed its fifteenth year of publication with its December number. With the January number, Messrs. E. B. Treat & Co. become its sole owners, having purchased the interest of its founder, Dr. Wm. P. Watson.

THE JOURNAL OF SCIENTIFIC MEDICINE is a new periodical, just out, from Chicago, edited by Dr. Gustavus M. Blech. The initial number has several articles, brief but interesting.

CLIMATE is the title of a new journal, devoted to the study of the therapeutic indications in climatology and the like. The first number is quite attractive. Dr. S. Claiborne Martin, Jr., of St. Louis, is the editor.

PROF. RUDOLF VIRCHOW has been again honored in a reelection to the Reichstag by the Social Democrats. His usefulness is not yet diminishing, nor his versatility on the wane. His recent momentous address in London, and his activity in his laboratory and political work do not indicate that he is something over seventy-seven years of age.

DR. J. R. TACKETT, formerly of Biloxi, Miss., on his return from Cuba, has removed to Meridian, where he will be located in future.

“SCATTERED LEAVES FROM A PHYSICIAN’S DIARY,” by Dr. Albert Abrams, is announced to appear as a series of satirical sketches in the *Medical Fortnightly*, beginning January 1.

Dr. JOHN B. HAMILTON, ex-surgeon of the Marine Hospital Service, died in Elgin, Ill., December 24, of peritonitis. Dr. Hamilton was 51 years old, and has been identified with prominent positions in the medical world for several years. His connection with the Marine Hospital Service was one of marked usefulness. For several years he was editor of the *Journal of the American Medical Association*, which office he still held at the time of his death. Dr. Hamilton had been ill for some days, Dr. Senn having him in charge.

THE STATE BOARD OF MEDICAL EXAMINERS held their semi-annual examination on December 15-16, 1898. There were 20 applicants, of whom 14 passed and were licensed. Of the applicants, six were negroes; of these, three were passed. Three women applied, two white, one colored; one white and one colored passed.

Dr. J. N. ROUSSEL has decided to remove from New Orleans to Mer Rouge, La. Dr. Roussel will be missed in New Orleans where his good work and personal attributes have made him many friends. We understand that purely business interests in his new home have occasioned the change.

Prof. ERNEST LAPLACE, M. D., of Philadelphia, is in the city enjoying his Christmas holidays as usual.

A HOLIDAY ENTERTAINMENT was given by the New Orleans branch of the house of Parke, Davis & Co., embracing two one-act farces and a number of musical and terpsichorean specialties.

The affair was strictly informal and all the participants were directly connected with the establishment. The program was enjoyable, and we are thankful for the invitation which was tendered by the committee in charge.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

AUTOPLASTY BY UTILIZATION OF THE OPPOSITE BREAST.—Franke, in the *Deutsche Zeitschrift für Chirurgie* for November, 1898, describes a method for closing great defects in the skin in the removal of very extensive malignant disease of the female breast and neighboring parts. The operation consists in utilizing the opposite mammary skin. The procedure is similar to that described by Leguen in *Semaine Médicale* (October 22, 1898), and by Græve in *Centralblatt für Chirurgie* (No. 40, 1898). But Franke's operation differs from the other, in that he does not carry anything but the skin over, whilst Leguen and Græve make use of the whole mammary gland. In the case which Franke now reports the skin was extensively involved, requiring the removal of an immense area. Both pectorals were excised and typical cleaning of the axilla was done. The incisions were then prolonged across the sternum and around the other mammary gland except at its upper and external aspects, which formed the pedicle of the flap extending into the axilla. This great flap with the mamma attached was next dissected away from the chest and the gland thoroughly removed, leaving nothing but the skin. The nipple was also taken away, leaving a hole which was utilized for drainage after the flap was moved around to the opposite side and sutured in place.

This expedient is well worth bearing in mind, when the surgeon is operating in this region for malignant disease. Though the author does not mention this, we think the method may prove of value in closing the defect in the chest wall in those extensive thoracotomies for tumors of the thoracic skeleton, where so much skin has been removed that the wound can not be closed. The failure to close the defect adds immensely to the chances of a fatal termination.

TREVES VS. HALSTED AND THE INFLATABLE RUBBER-BULB IN INTESTINAL SURGERY.—The *Philadelphia Medical Journal* in its

issue of December 3 makes some very pertinent remarks in respect of the strictures uttered by Treves concerning the use of the rubber-bulb by Halsted in intestinal surgery. It very justly nails the sneer of Mr. Treves in characterizing the suggestion of Halsted of this "old-new procedure" as a step backward sixteen years.

Treves had asserted in a recent article that he devised this bulb in 1882, but had quickly discarded it, having found it worthless, yet, as the *Journal* shows, by an abstract from the *Medico-Chirurgical Transactions*, it was on December 12, 1892 (not 1882) that Treves read his article on Resection of Portions of Intestines, in which he describes the inflatable rubber-cylinder and speaks approvingly of its use. Halsted's back-step is thus shown to be only six years long and not sixteen. This sneer is about on a par with his criticism of Wyeth's bloodless method for amputation at the hip-joint, in which, he says: "If the after-oozing be taken into account operations conducted according to the above method can hardly be called 'bloodless.'" We agree with our contemporary that "the hauteur and sneers in Mr. Treves' words are as absurd as they are unnecessary."

Department of Obstetrics and Gynecology.

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

MENORRHAGIA AND METRORRHAGIA AS SYMPTOMS.—W. L. Dunning (*The Amer. Gyn. and Obst. Journal*) says: Among the local causes may be mentioned conditions that favor congestion of the uterus, as

First—Inflammatory conditions of the uterus or appendages—metritis, endometritis, salpingitis, oophoritis, peritonitis.

Second—Obstruction to the venous flow, as in displacements of the uterus, retroversions and flexions, especially if bound down by adhesions, prolapsus, subinvolution following labor at term, abortions, lacerations, etc.

Third—Diseases of the endometrium, granular or fungous en-

dometritis, exfoliative endometritis, polypi, adenoma, retained products of conception, hyperemia of the endometrium incident to the presence of growths or inflammation, either of the uterus or appendages.

Fourth—Fibromyomata, especially the submucous and the interstitial forms. They largely increase the blood supply and mechanically obstruct the venous return, and keep up a hyperemic and irritable condition of the endometrium. The nearer the tumor to the mucous membrane the earlier and more profuse the hemorrhage. Beginning as a profuse menstruation it may become continuous.

Fifth—Malignant disease, when there is carcinoma of the body of the uterus; hemorrhage for a long time may be the only symptom.

Sixth—Placenta previa should be thought of when the patient is pregnant.

Seventh—Abortion, threatened abortion, and attempted abortion must be borne in mind as possible causes of uterine hemorrhage. Married women, as well as single ones, may attempt abortion upon themselves, and in their effort to conceal it may deny the existence of pregnancy.

Eighth—Extra-uterine pregnancy, especially after rupture of the tube down between the folds of the broad ligament; hemorrhage may be continuous, making its exit through the uterus. The patients are usually supposed to be suffering from a miscarriage.

ALL FORMS OF EXTRA-UTERINE PREGNANCY ARE PRIMARILY OF TUBAL ORIGIN, says Dr. John W. Taylor (in the *Lancet*), and all varieties are the results of secondary invasion beyond the confines of the tubes into other tissues or organs. The secondary varieties are classed as:

(1) Tubo-abdominal (abdominal or ventral) pregnancy, in which there is secondary invasion of the abdomen;

(2) Tubo-ligamentary (meso-metric or broad ligament) pregnancy, in which there is secondary invasion of the broad ligament and subperitoneal tissues; and

(3) The tubo-uterine or interstitial pregnancy, in which there is a secondary invasion of the uterus.

Early rupture of the tube between the second and sixth week without warning is a special phenomenon of extra-uterine preg-

nancy, and is not rare. In these early cases little change takes place in the tube except at the point of pregnancy and rupture. The abdominal ostium will be found normal, the tube itself often badly developed, small, its muscular coat defective and the uterine ostium contracted. It is highly probable that some amount of non-development or atrophy of the tube is responsible for all cases of early rupture.

Intra-peritoneal hematocele in women is almost always caused by tubal pregnancy, sometimes by rupture of the tube, and sometimes by bleeding from the fimbriated end of the tube without rupture. The latter is the more common cause of intra-peritoneal hemorrhage; in which the hemorrhage is almost continuous, or frequently repeated, and a well defined hematocele is the invariable result. In cases of tubal rupture the bleeding is diffuse and rapid, there is no time for the formation of a tumor and death rapidly follows, if the bleeding is not checked by operation.

Later, rupture of the tube between the second and fourth months is most common when the pregnancy lies near the middle or outer third and is probably never so directly and immediately "fatal without warning" as in cases of early rupture when the pregnancy occurs at the uterine end of the tube. If the placental side is not involved in the rupture, the bleeding may be moderate or entirely wanting. In this case a local peritonitis ensues, causing adhesions between the intestines and peritoneum, and producing an intra-peritoneal hematocele, which may give way and permit recurrent hemorrhages into the peritoneal cavity.

Tubo-abdominal pregnancy. When a fetus escapes from the tube into the abdominal cavity with membranes unruptured, while the placenta remains attached to the tubal mucosa, the fetus may go on to term in the abdominal cavity. But for the further development of the fetus the unruptured amnionic membranes are absolutely indispensable, to protect it from the absorptive faculties of the peritoneum. Tubo-uterine pregnancy is invariably fatal. There is no authentic case on record of a fetus rupturing into the uterine cavity and going to term.

Department of General Medicine.

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

HYDROCEPHALUS ASSOCIATED WITH HEREDITARY SYPHILIS.—Dr. H. Audéoud, of Geneva, in bringing up this question before the late French Congress of Pediatrics, reported the following case: A male child, whose mother was distinctly syphilitic, and father healthy, was born at term, presenting cutaneous and mucous symptoms, cured by Gibert's Syrup (a French preparation containing per tablespoonful 1 centigramme or $\frac{1}{8}$ of a grain of mercury binioidide and 50 centigrammes or $8\frac{1}{3}$ grains of potassium iodide). At 5 months signs of unmistakable hydrocephalus developed gradually, viz.: nystagmus, large head, hebetate facies, etc. This condition was much improved after three months and a half of specific treatment, and after one year all the symptoms mentioned had entirely disappeared. Moreover, there existed obesity, which is very unusual in children affected with hereditary syphilis, the little fellow weighing at sixteen months 16 kilogrammes—410 grammes, the average weight of a child four years old. This case demonstrates the development of certain cases of hydrocephalus, and encourages the hope of curing them.

Discussing the paper, Dr. d'Astros says: "Hydrocephalus associated with hereditary syphilis is generally due to malformations; yet, at times, it is caused by the direct influence of syphilis, and in such cases only is there any possibility of cure by specific treatment."

Says Dr. Broca: "Out of the large number of cases of hydrocephalus I have attended, only one was ever cured by specific treatment." Says Dr. Weil: "Fochier has reported two cases cured. One of them presented first a spina bifida, which was operated; hydrocephalus followed and was cured by specific treatment." Says Dr. Broca: "I had the opportunity of seeing that case three years after the operation. The good results at first obtained did not persist, for at the time I saw the child it was a sort of idiot."—*Gaz. Hebdom.*, Dec. 1, 1898.

A CASE OF OZENA CURED WITH ANTIDIPHThERITIC SERUM.—Ozena nowadays is regarded by almost all authors as a micro-

bian disease, produced by the rhino-bacillus of Lœwenberg and Marano.

Therapeutists, feeling but little encouraged by the old methods of treatment and searching for new ones, have recently had the idea of injecting their cases with the diphtheria anti-toxin of Behring-Roux. The first who attempted it were Belfanti and Della Vedova.

Since then several observations have been published on the result of this new treatment of ozena; the case reported here may be added to those known to have been cured up to the present time.

Observation.—Auguste Gabriel V——, aged 20 years, shoemaker, living in Berk-sur-Mer, of average size and strength, has never had any serious illness.

In December, 1897, those around him began drawing his attention to his foul breath, for which he used repeatedly a number of mouth washes. In February, 1898, it was remarked that the offensive smell came from his nose and he consulted Dr. Ménard, chief surgeon of the Maritime Hospital, of Berck-sur-Mer. Rhinoscopic examination revealed the presence of false membranes of a greenish-white color, covered with pus, veritable crusts emitting a stench and beneath which the mucosa appeared of a bright red color. The patient spoke through his nose slightly, and when blowing it he passed some pus. Dr. Ménard, realizing that local treatment was insufficient, thought of Belfanti and Della Vedova's recent treatment, namely, the injections of diphtheria antitoxin.

These were begun in February, 1898, and made at the upper part of the back, on each side of the column, with all the antiseptic precautions usually taken. They were repeated in the following manner: Three injections a week, during three months, each—the injections being of 5 c. c.

It must be stated, however, that the local treatment was kept on during the course of the injections, consisting of nasal douches, several times a day, with a 2 per 100 solution of carbolic acid in water.

The *sui generis* smell emitted through the nose was bettered for a time, then again it grew worse, and so on alternately until about April 15, when a decided improvement was noted. Then, the injections were brought down to only one a week, with same

doses. But, about May 2, the smell was again present with its nauseabond character. The doses were then raised to 10 *c. c.*, one injection a week being continued. After one month the patient's condition was pretty satisfactory; the false membranes fell partially, and this improvement grew steady until the end of July, the injections still being continued. The latter were interrupted from August 1 till September 1, and the smell was never detected, By way of precaution, however, three extra injections were made from September 1 to September 15, of 5 *c. c.* each, and the patient continued to feel as well as possible.

Those around him stopped complaining to him of his stench and the nasal douches were ordered discontinued. Dr. Ménard then made another rhinoscopic examination and found the mucosa red and congested, but there was no false membrane, no crust, only a little pus near the superior turbinated bone. The patient, who had been exposed to continual vexations and whose life had become unbearable, now began to take heart and cheer up. On September 30, he was seen for the last time; there was no smell detectable about him and he felt positive that he was entirely cured.

Remarks.—A striking point in the history of this case is first the amount of antitoxic serum used, viz. : 315 *c. c.* in six months, an average of 52.5 *c. c.* per month, and next the absence of danger from the considerable amount used.

Lombard, in the 15 observations he published, injected serum on an average of from 125 to 130 *c. c.* The maximum was 325 *c. c.*, and the minimum 45 *c. c.* He pointed out reactionary phenomena which we failed to meet in this case.

Other authors insist very much on the importance of a general tonic treatment associated with the antitoxic injections, Silanousitzki for instance, who, in his report of nine cases, closes by saying that patients always derive some benefit from the serum treatment.

We would rather insist upon the importance of the local treatment associated with the serotherapy, using antiseptic douches repeatedly every day, the antiseptic being left to the option and convenience of each attendant.

Another point is the long duration of the treatment, and regarding this it is well to insist that no discouragement should arise from the temporary aggravations happening during the course of the treatment.

Again, we call attention to the necessity of decreasing the doses gradually. Molinié, on the contrary, advises to inject steadily 10 c. c. every three or four days, until twelve or fifteen injections have been made. The serum treatment of ozena shall certainly prove useful as new reports are made.

The cupro-electrolytic method of Caport and Cheval having failed to show better results than the other methods of treating ozena according to the statement of Brindel and Auché, we report the cure of this case by the serum method of Belfanti and Della Vedova, merely for the fact itself, without intention of criticising.—DR. FERNAND CATHELIN, of the Maritime Hospital of Berk-sur-mer, in *l'Echo Médical du Nord*, November 13, 1898.

Department of Therapeutics.

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

THE TREATMENT FOR INTESTINAL WORMS.—In the *Revue de Thérapeutique Medico-Chirurgicale* of June 1, 1898, Lyon tells us that the patient should have nothing for his dinner or supper save a bowl of milk or soup. The bowels should also be carefully washed out in the evening by an injection, and the vermifuge taken; a purgative and rectal injection being used the next morning. He believes that the sulphate of pelletierin in the dose of two to four grains is best given in a mixture containing tannin; thus he prescribes:

℞	Sulphate of pelletierin	3 grains.
	Tannin	15 grains.
	Distilled water and simple syrup.....	2 ounces.
	Essence of orange	10 drops.

This is to be taken in two doses at half-hour intervals. Ten minutes after the injection of the second dose a large draught of Hunyadi water should be taken. Such a prescription should not be given to a pregnant female, nor to very old persons. In other instances the following prescription may be used:

℞	Oleoresin of male fern	1 to 2 drams.
	Syrup of ether.....	1 ounce.
	Mint water.....	3 ounces.

To be taken in two doses, two hours apart. Or the oleoresin of male fern may be given in capsules with calomel, seven grains of the oleoresin and one grain of calomel to be put in one capsule; twelve to sixteen of these capsules are to be prepared, and two should be taken every ten minutes. One hour after the last capsule is administered a purgative may be given.

Lyon points out the fact, which is well known to therapeutists, that castor oil should not be given after male fern, as it favors the intoxication with filicic acid. For the removal of round worms, Lyon advises the use of santonin combined with calomel; two to five grains of santonin may be given with a grain or two of calomel, divided into three cachets. For the removal of seat worms, Lyon suggests injections with salt water, the use of castor oil or of thymol (three grains in two ounces of olive oil). In other instances glycerin suppositories may be used with advantage; or again, a solution of boric acid may be employed.

IODIDE OF ARSENIC IN SCROFULA.—Dr. S. Saint-Philippe (*Journal de Médecine de Bordeaux*) recommends the following:

℞ Iodide of arsenic 7.5 grains.
 Distilled water 750.0 minims.
 M. Dissolve cold.

Five, ten, twenty or even thirty drops may be taken in divided doses through the day. Ten drops contain about fifteen-hundredths of a grain (one centigramme). It is wise to commence with a small dose and to gradually increase it.

THE TREATMENT OF PERNICIOUS ANEMIA WITH RECTAL INJECTIONS OF ARSENIC.—According to the *Ufficiale Sanitario Rivista d'Igiene e di Medicina Practica* for September, Dr. Viray, finding that neither iron nor phosphorus, quinin, venous infusion, or bone marrow effected satisfactory results, succeeded in obtaining them by means of arsenic. But, as the stomach does not tolerate sufficiently large doses, while the hypodermic route is inconvenient on account of local lesions, he made use of the following formula by rectal injections:

℞ Distilled water 840 minims.
 Fowler's solution 60 minims.
 M.

Seventy-five minims were introduced into the rectum in the early morning and in the evening, and after four days' treat-

ment, three times a day, thus causing the absorption of fifteen minims daily of Fowler's solution, corresponding to fifteen one-hundredths of a grain of arsenious acid. This dose proved sufficient to obtain therapeutic results. In graver cases he used a still stronger solution, namely:

℞	Distilled water.....	.675 minims.
	Fowler's solution.....	75 minims.

M.

By this method the dose of arsenious acid is raised to approximately a quarter of a grain daily, administered in three injections. The advantage of the smaller dose is the capacity to continue arsenic treatment for a longer time without producing tenesmus. The only contraindication lies in diarrhea. The arsenic treatment should of course be accompanied by sufficient alimentation, and finds a good adjunct in the inhalation of fifteen quarts of oxygen before meals.—*N. Y. Med. Journal.*

PREVENTIVE POWER OF THE SPLEEN IN THE IMMUNIZED AGAINST THE BACILLUS TYPHOSUS.—It is known that the serum of an animal immunized against typhoid is preventative against typhoid infection. The authors have endeavored to find whether this preventative power also exists in the viscera.

To that effect, they injected, intravenously, into four dogs repeated doses of typhoid toxin. Then, after a certain lapse of time, the dogs were killed and their serum collected. The liver and the spleen were also extracted, crushed with salt water and squeezed. A liquid extract was thus made by the authors with the above serum and the extracts led to the following results:

The serum and the spleen extracted protect very well against typhoid infection a guinea-pig into which a very small dose of culture has been injected. If the dose is larger, the serum ceases to protect, but a dose of spleen extract equal to the dose of serum is efficient in saving the guinea-pig from death.

If the culture is still larger the guinea-pigs die, but much more slowly than when they are treated with the serum. As to the liver the results are not yet very clear. From these experiments it is therefore inferred that in an animal immunized against typhoid bacillus the immunized power is greater in the spleen than the blood. It might be possible that the immunized substances are chiefly manufactured in that organ and thence

pass into the circulation.—LÉPINE AND LYONNET, in *Lyon Médical*—*Bulletin of the Pasteur Institute*.

EPHEDRIN. —An alkaloid obtained from the leaves of the ephedrin vulgaris, introduced to the profession several years ago, is at the present time receiving attention by several investigators. It has been found that the addition of an hundredth part of homatropin hydrochloride to one part of the ephedrin enhanced the action of the latter. This observation has led to the combination of the two medicaments. The new agent, which is known as “mydrin,” is a white powder, readily soluble in water.

THE PREVENTION OF COLDS.—Speaking of the effect of baths in preventing colds, Dr. L. Brunton says: “You know that all organs are capable of training; that when a man gets out of sorts, when he is having little exercise, not only do the muscles of his legs become much weaker, but his breath gets short. He can not run in the way he could before without getting oppression at his chest; but with a little training he not only regains power in the muscles of his legs, but no longer gets so soon out of breath. In other words, his heart regains, to a certain extent, its power of driving the blood rapidly through the lungs and getting it well aerated. But what holds good for the heart and pulmonary vessels in training also holds good for the vessels of the skin. If an animal be kept at a high temperature for several days the vessels of the skin appear to lose their power of contraction, so that if it then be taken out and exposed to cold it will become chilled much more quickly than another animal of the species and size which has not been kept in a warm chamber. We thus see that people who are accustomed to live in over-heated rooms are more likely to suffer from chills than those who live in a temperature which is not much above the proper one for the body. We can to a certain extent restore the power of contraction to the vessels of the skin by training them. If you give a man a cold bath, or, perhaps, what is still better, a simple wash-down every morning, with a brisk rub afterward, the quick contraction which follows the application of cold is succeeded by rapid dilatation, which occurs after the cold has passed off and is increased when the skin has been stimulated by rubbing with a rough towel. This

seems to cause a training of the vessels so that they are able to react readily to any stimulus that may be applied to them. If a man whose skin is in training in this way goes out and is exposed to a cold wind, his vessels at once retract and keep the blood warm in the centre of the body, so that he is not chilled like one whose skin is not in training."—*The Action of Medicines.*

GASTRALGIA.—The following prescription for gastralgia has the high authority of Professor Ewald, of Berlin :

R	Codeinæ phosphatis.....	¼ grains.
	Bismuthi subnitratis.....	v grains.
	Sacchari lactis.....	iii grains.
M.	This as a dose every two hours.	

—*The Practitioner.*

Miscellaneous.

HEROIN.—In Pfluger's *Archiv fur die gesammte Physiologie*, Vol. 72, p. 845, 1898, the following detailed statement on "Heroin" is given by Prof. Dr. Dreser of Elberfeld :

If both hydroxyl-groups of morphin are supplied, or replaced, or substituted by two ethyl-groups (one at a time), there arises the di-acetic-acid-ester of morphin called *heroin*. In the work at hand the author has occupied himself largely with the qualities of heroin, in numerous experiments made by him on frogs, cats, rabbits, etc.

As the chief result from all these experiments the fact is remarked that *heroin* possesses a specific effect on the respiration (lowering the reflex-susceptibility of the nerve-centres, of coughing, etc.) in a still higher degree than *codein*, and that this effect is purer than that of *codein*, for it occurs later, and the spasm-stage is less intensive when it is administered in toxic doses.

Administering heroin (to rabbits) one single milligram is sufficient to bring about a distinct diminution of the frequency of respiration, while at least one centigram of phosphate of *codein* must be given to obtain the same effect in the same degree. The fatal dose of *codein* is one decigram per kilogram of the body weight in a rabbit, while with heroin somewhat more than a decigram is needed to kill the animal. The

efficacious dose and the fatal dose is, therefore, ten times larger with heroin than with codein. Furthermore, despite a more feeble efficacy with regard to respiration, codein is relatively more dangerous, because it possesses more spasm-exciting qualities than heroin.

The inspiration becomes prolonged from heroin, the volume of the single inspiration is considerably increased, while the force and energy of the same is by no means diminished, but, on the contrary, essentially increased. The need or want of oxygen by the organism is much lessened by heroin, as it diminishes extra muscular action, but by no means lessens the sensibility with regard to oxygen-impoverishment and carbonic acid accumulation. In like manner the arterial blood experiences no change in its need for saturation with oxygen.

The mechanical expansion of the lung is but very little affected by heroin.

Since the heart and circulation are not influenced in a stronger manner by heroin than by codein, Dr. Dreser recommends clinic tests with this new morphin-derivative in indications which now call for the administration of codein.

CONTRIBUTION TO THE THERAPEUTIC EXPERIMENTS WITH HEROIN.—*Die Berliner Klinische Wochenschrift*, No. 45, 1898, brings an article under this heading. It is a new and pleasant proof that modern medicine tries energetically to upset old medication by successful new therapeutic agents.

The contribution comes from the II Medical University Clinic of Berlin and its author is Dr. George Strube. The doctor says in the beginning that by referring to the labors of Dreser he feels himself justified in not entering too minutely into the details about his own experiments with animals, but to relate briefly their results. These results indicated the therapeutic employment of heroin in medical practice and the author used it accordingly. Conditions arose where dyspnea from different causes occurred, in which a diminution of the frequency and deepness in breathing were desirable and had to be aimed at. Likewise in the inflammatory affections of the bronchia and the lungs, there arise tickling cough and heaving, produced by an accumulation of mucus, and these have to be combated because the existence causes insomnia.

Strube administered heroin first of all to a number of phthisic patients toward evening instead of the usual morphin drops or codein pills, in order to obtain sleep by alleviating the irritation causing tickling cough. First he used pills containing five milligrams of heroin, later he gave the drug in powder form, so that five milligrams, in addition to sacch. alb., were taken. He also employed solutions containing five milligrams to the gram. The result was satisfactory and the patients took the drug willingly, because they distinctly experienced some mitigation of their condition and sleep resulted.

In order to study the effect more minutely and in its particularity, heroin was given to phthisic patients with dyspnea and much cough during daytime. The breathing, pulse and general bearing during several consecutive hours were carefully registered.

The effect showed itself mostly half an hour after taking the drug, viz.: diminution of cough irritation, slowing of the breathing and the effect increased during the following two hours. After one and a half to two hours, after taking the drug, sleep not infrequently set in. Therefore the therapeutic effect of heroin shows itself as follows: heroin in doses of 5 milligrams to one gram has a demonstrable quieting or sedative effect upon the breathing. The frequency of breathing lessens, cough irritation is removed. At the same time a general narcotic effect takes place which is described as a feeling of lassitude, stupefaction, confusion, so that (external perturbation or disturbance not occurring) sleep sets in which would have been prevented by dyspnea and cough irritation. By-effects of an obnoxious nature have not been observed by Dr. Strube. He designates as an indication for the drug all those conditions of dyspnea and cough irritation in which hitherto morphin and codein have been employed, for heroin seems superior to codein on account of its special effect on the centres of respiration, and as regards morphin its narcotic effect seems to be a milder one.

CLINIC EXPERIMENTS WITH HEROIN.—Floret, after six months use of heroin, reports favorably upon his experiments in sixty patients (*Therapeutische Monatschrift*, No. 9, 1898). He administered the drug in five milligram doses, and even in one and

two centigram doses, three or four times a day, generally in powder, with sugar of milk, or in aqueous solution, to which a few drops of dilute acetic acid were added. His cases consisted of cough and of inflammations of the chest, especially angina, pharyngitis, tracheitis, bronchitis, etc. He found it a good substitute for morphin and codein. One patient complained of vertigo; no other outward effects were noted. The writer notes that the heroin habit was not contracted.

WRITER'S CRAMP FROM DIABETES.—In *Die Arztliche Praxis*, 1898, No. 48, we find the following diagnostic contribution: A clerk at forty-eight consulted Dr. Mayrhofer, complaining that his hand for some time already became quite insensible and refused to work as soon as he took a pen in his hand. Dr. Mayrhofer thought that he had to deal with a case of ordinary writer's cramp, and a superficial examination showed a diminution of sensibility in the right arm. After some sittings during which the arm was paralyzed, the alleged writing cramp was completely gone. But, when later on, the urine was analyzed, the tests for sugar (glucose) gave positive and manifest results. Therefore the writing cramp was explained, the patient was simply suffering from diabetes mellitus. It is well known that concomitant perturbations of sensibility and sensitiveness are by no means infrequent in diabetes.

UNGT. HYDRARG. CINER. INTERNALLY AGAINST SYPHILIS.—In the *Therapeutische Monatshefte*, No. 7, 1898, Dr. Silberstein, of Hamburg, publishes the following:

Proceeding from the supposition that it is chiefly the evaporating metallic mercury which acts as the *anti-syphilitic* principle, Anuschat had recommended mercury reduced by fat in form of pills, internally, against syphilis. It is obvious that this mode of treatment would be an essential improvement upon the *inunction cure*, which is connected with so many troublesome annoyances. Silberstein has put this method to a test in about fifty syphilitic patients and prescribed the following pills:

℞ Ungt. lanolini hydrarg. ciner. 4.5 (nearly 68 gr.)
 Pulv. rad. liquor. 5.0 (1 dr. and 17 gr.)
 Glycerini gtt. v.
 Mucil. gummi min. 9.5 (2 dr. and 27 gr.)
 M. F. pil. No. 60.
 S. Twice daily two pills.

Or, he prescribes according to Anuschat's formula :

- ℞ Hydrarg. metall. puri, 5.0 (vide above).
 Lanolini, 10.0 = 153½ grains, or two drachms and 4 grains.
 Extingue Hg. exactissime extendo, et adde :
 Rad. althææ, 9.5 (vide above).
 M. f. pil. No. 100. S. twice daily, one pill in wafer.

It goes without saying that in this treatment, also, the most vigorous cleanliness should prevail, especially the cleansing of the mouth. The stools should be regulated. In this manner none of the usual nuisible by-effects were observed.

As to the result of this treatment, it is alleged, it stands by no means behind the inunction treatment. On the contrary, it is said that the syphilitic phenomena disappear sooner—*i. e.*, in a shorter time.

For instance, in one case of syphilitic acne, which had baffled every other anti-luetic treatment, the above pill produced, after eight weeks, a complete disappearance of all the phenomena. So, at least, it is alleged.

With regard to the *modus operandi*, Anuschat orders generally thirty pills, and gives one pill twice daily. So soon as convalescence sets in, a pause of four weeks is made, and then a termination cure of again thirty pills is given. But during the whole mercury treatment, in order to perfect a perfect cure, it is essential that fat in any form, and abundantly, should enter nourishment. Ulcerations at the genitals, condylomata, mouth and throat affections, should still be treated locally during the treatment, and frequent baths should be taken.

THE BOARD OF HEALTH OF THE PROVINCE OF QUEBEC, which has the supervision and care of the public health in this province, thinks it opportune to make public the conclusions of a report, duly approved by it, which prescribes the best means of avoiding the dangers which necessarily arise from the use in common of the razor, shaving brush, scissors, clipper, comb and hair-brush. We quote in full, from the *Canada Medical Record*, the following instructions approved by the Board of Health of the Province of Quebec, at its meeting of June 17, 1898.

WHEREAS, syphilis and other diseases of the skin and scalp may be propagated by the instruments and hands of barbers and hair-dressers, the board, after having carefully examined into the various suggestions made to date to prevent such danger and

also into the discussion which has followed their publication, recommends the following measures:

I. *To encourage customers to have each his own instruments* (razors, soaps, brushes, etc.), and to make this obligatory in the case of sick customers. It is also advisable, in the interest of the barber himself, to attend sick customers at their own homes.

II. *Disinfection of razors, combs and clippers.*—(As the processes of disinfection hereafter described may sometimes spoil tortoise shell, celluloid, horn combs or razor handles, metallic combs and razor handles should be used in preference.)

Immersion, immediately after use, in an enameled or galvanized sheet-iron dish containing, either—

1. A solution of carbonate of potash (1 per cent.), which does not spoil the edges of razors, or—

2. Soapy water (soapy water preserves steel instruments from rust, provided, however, they be completely covered by the water).

Boil the solution of carbonate of potash or the soapy water in which the instruments have been placed for fifteen minutes, by putting a jet of gas or a coal-oil lamp under the dish.

It must not be forgotten that by disjuncting the scissors and clippers their disinfection and cleansing is better effected. Scissors which are very easily taken to pieces are found on the market; and, with regard to clippers, the preference should be given to models which can be easily taken apart.

Dipping instruments in alcohol, followed by ignition (instantaneous process) and the immersion in solutions of corrosive sublimate or carbolic acid, are now abandoned, as they are apt to spoil the instruments.

III. *Disinfection of Brushes.*—Deposit brushes on gratings in a small closet or case which closes hermetically and in which is kept a saucer constantly filled with a solution of formalin (one ounce for every cubic foot of the closet). The brushes are disinfected after two hours' exposure to the fumes of formalin, but they may, without inconvenience, be left in the closet all the time they are not in use. They should be cleaned every evening with bran, clay, etc.

The way to obviate the necessity of disinfecting brushes is to dispense with their use. Even when the brush is perfectly disinfected, a great number of customers would prefer the hair-

dresser not to use it at all, or at least that he should use it only after consent has been given by the customer.

IV. *Purification of the Shaving Brush*.—The shaving brush can also be dispensed with, as instead one can use a ball of cotton-wool, which is thrown away immediately after using. In any case, the shaving brush should never be used before the bristles have been immersed for a few minutes in boiling water.

V. *Purification of the Hands*.—Before passing from one customer to another, the barber or hair-dresser must wash his hands, using soap and nail brush; carbolic soap to be preferred.

VI. *The Powder Puff* will be replaced by a ball of wadding, thrown away immediately after being used, or, still better, by a powder blower.

VII. *The Alum Stick*, frequently used to stop the flow of blood, will be reduced to small pieces, so that each piece be used for one customer only. Calcined alum, a powder which can be applied on cotton-wool, which should be thrown away immediately afterward, is much preferred by most people.

VIII. *Linen*.—Only strictly clean linen (towels, wrappers [*peignoirs*], etc.), will be used for each customer. If a freshly laundered wrapper can not be supplied for each customer, discard it and use simply a clean towel. The customer will prefer having his own hair fall on his clothes than to have around his neck a wrapper which has only been shaken since the last customer had it on.

IX. *Cleaning the Head after Cutting the Hair*.—If the scalp is not washed, use only the comb to clean the head. The use of a stiff brush to clean the roots of the hair followed by the use of a soft brush or duster on the scalp and face is, to say the least, very disagreeable to most customers.

X. Immediately after cutting the hair, *sprinkle the floor* with wet sawdust and use a mechanical broom, the receptacle of which should be emptied into a covered bucket. The contents of the bucket should be burnt every evening.

XI. *Razor Strops*.—The only way to disinfect them would be to expose them to the fumes of formaldehyde (formalin); but as this is not a very convenient method, one must avoid contaminating them. To this end they should only be used for razors which have been previously disinfected, and therefore the barber should never stop shaving a customer to strop the razor he is actually using.

XII. *The use in common of the same vaselin pot* should also be avoided. It is better not to use any vaselin, unless the hair-dresser is prepared to use a spatula to take the vaselin out of the pot or bottle, being careful not to apply directly said spatula to his contaminated hands.

XIII. Finally, *sponges should never be seen in shaving or hair-dressing parlors*. Although they may be disinfected in a solution of bichloride of mercury (a one-thousandth solution), they will always be looked upon as suspicious and disagreeable by refined customers.

TOXIC CHROMATOPSIA AND TOXIC HYSTERIA.—Dr. deSchweinitz relates the history of a patient, aged 51, who asserted that his left eye had always been defective in vision and had practically been blind for eleven years, and whose right eye for eight weeks previous to examination had been affected with marked xanthopsia in the form of orange-colored smoke which passed constantly before it. With the exception of catarrh of the stomach, the patient presented no constitutional ailments, but had always been an excessive smoker and for part of his life a chewer of tobacco. He did not use spirits in any form. There was a typical relative central scotoma in the right eye, and in the left, or supposed blind eye, a scotoma for white could also be demonstrated in the centre of the light-field, which in its periphery was normal, just as the form-field in its periphery was normal on the other side. Under a regimen which consisted in abstinence from tobacco, full doses of iodide of potassium and strychnia, the patient improved, and in six weeks returned with the vision of the right eye normal, the chromatopsia gone, and the scotoma no longer demonstrable, or at least only a slight depreciation of color-sense in the old scotomatous area. Tests for feigned monocular blindness were now perfectly successful, and by all ordinary methods it was positively shown that the patient read as well with his left as with his right eye. There had never been any ophthalmoscopic changes of gross disease, probably only a slight flushing of the optic discs. There was also partial hemianesthesia of the face. The speaker compared the case to various forms of toxic hysteria as they are seen under the influence of lead, alcohol, mercury, bisulphid of carbon, and nitro-benzol. So far as his experience went, xanthopsia as a symptom of the

toxic action of tobacco had been observed only once before.—*Section on Ophthalmology, College of Physicians of Philadelphia.*

RUPTURE OF THE IRIS AND CHOROID.—Dr. B. A. Randall reported the case of a boy struck in the eye by a stone three days before, in which there was a partial paresis of the iris above and a pupillary nick below, and in the choroid near the disk 3 nearly parallel linear lesions. These streaks seemed not real ruptures of the coat but torsion injuries comparable to those reported by him in 1887. There was neither extravasation nor uncovering of the sclera in the affected areas, but merely yellow streaks that will doubtless undergo atrophy and pigment degeneration and present the appearance of total rupture. The macula was uninjured and V. nearly normal. Each lens showed a tiny extra-nuclear opacity, more pronounced on the uninjured side. They were probably congenital, but might readily be ascribed to the injury, and hence from a medico-legal point of view assume considerable importance. (The patient has since been seen, twenty-six days after injury, and already shows nearly the typical appearance of choroidal rupture with pigmentation of the margins.)—*Ibid.*

“SURGICAL INTERFERENCE” OR “SURGICAL INTERVENTION?”—We have never understood why authorities in surgery use the word “interference” when speaking of operative or surgical treatment. When a surgeon performs an operation for the correction of a deformity, the mitigation of pain or the saving of life, does he mean to say that he interferes? If it be interference, then he is culpable; but certainly no operator will plead guilty to the charge of doing meddlesome surgery, and the inevitable conclusion is that the term “surgical interference” is a misnomer. Whenever we read it in text-books, or in current literature, we feel like substituting the word *intervention* for “interference,” using the word *intervention* in the sense of interposition, or, better still, mediation—a coming between for a friendly purpose. The word *interference* suggests the idea of collision, clashing, opposition, officiousness, intermeddling, etc.

According to Webster: “A man may often *interpose* with propriety in the concern of others; he can never *intermeddle* without being impertinent or officious; nor can he *interfere*

without being liable to the same charge, unless he has rights which are interfered with."

Let us see what Trench has to say. We quote: "In our practical use, *interference* is something offensive. It is the pushing in of himself between two parties on the part of a third who was not asked, and is not thanked for his pains, and who, as the feeling of the word implies, had no business there; while interposition is employed to express the friendly, peace-making mediation of one whom the act well became, and who, even if he was not specially invited thereunto, is still thanked for what he has done."

A few days ago we suggested this improved phraseology to two of our surgical friends, both of whom are teachers of surgery and liberal contributors to surgical literature. They agreed with us that the point was well taken, and announced it as their intention to adopt the suggestion. Speaking for ourselves, this journal will hereafter use the term surgical *intervention* instead of surgical interference, and we shall hope to see its general adoption by surgical writers.—*Richmond Journal of Practice*, November, 1898.

THE SPECIALTY OF PEDIATRICS.—That pediatrics is fully established as a department of medicine can not be doubted. No one believes that pediatrics is a specialty like ophthalmology, which should be practised only by a limited body of men. It is, however, none the less a special department, demanding special study and a certain number of special workers. Such a body of special workers has been developed during the last two or three decades.

There are, in fact, close specialties in which the practitioner confines himself strictly to his department, and there are broad specialties in which the practitioner becomes an expert, but does not limit himself entirely to one class of disease. Of the latter class, pediatrics is an example. It is an offshoot of the department of general medicine and must always continue to be closely allied to it. The formative and developmental period, therefore, is in many regards the most important one of man's life. Hence, the proper management of an infant man in health and the treatment of the many diseases peculiar to this period of growth and development form a specialty of very great importance. The truth of this statement is not modified by the fact that the majority of sick children are treated by the general physician.—*Archives of Pediatrics*, December, 1898.

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.

Essentials of Materia Medica, Therapeutics, and Prescription Writing. By HENRY MORRIS, M. D. W. B. Saunders, Philadelphia, 1898.

This volume will be found useful by the student to carry to refresh his memory on the subjects treated, during his leisure moments; also as a guide in the quiz room. Works of this character answer a good and useful requirement, but as the author rightly says, "neither this nor any other 'compend' will suffice to form the groundwork of what is really the study of a lifetime—the Science of Medicine." STORCK.

Medical and Pharmaceutical Chemistry. By ELIAS H. BARTLEY, B. S., M. D., PH. G. P. Blakiston's Son & Co., Philadelphia, 1898.

This is the fifth edition of what we consider a most excellent text-book of chemistry for students of medicine and pharmacy. The value of the book would have been much enhanced if colored plates of precipitates, etc. had been introduced, such as those contained in the work of Simon.

We quite agree with the author regarding a gradual change to the new spelling of chemical terms, instead of an abrupt one, as by this method confusion is avoided. In the appendix, rules for the new spelling will be found.

The work is divided into five parts, and it treats of every thing of interest to medical and pharmaceutical students, from a chemical standpoint. STORCK.

King's American Dispensatory. By HARVEY WICKER FELTER, M. D., and JOHN URI LLOYD, Phr. M., Ph. D. Eighteenth Edition. Third Revision. In two volumes. The Ohio Valley Company. Cincinnati, 1898.

This is Volume I of a work of the above title. We know of no persons in the United States better qualified to edit a work of this character than its present authors, both of them being recognized leaders in the eclectic school of medicine.

We are well acquainted with the work of Dr. Lloyd; more especially

his work on the Drugs and Medicines of North America, which is considered authoritative everywhere.

The description and medical uses of the individual drugs are concise and accurate, special attention being given to those drugs most frequently used by eclectic practitioners. Preparations of the National Formulary have been introduced in this edition of the work. It is to be regretted that the authors have seen fit to make mention of some proprietary medicines.

We consider it unfortunate that the publishers have used such light paper in a book which is intended as a work of reference.

We anticipate the issuance of the second volume.

STORCK.

The Medical News Visiting List. LEA BROS & CO., New York and Philadelphia, 1898.

This useful companion to the physician has made its timely appearance. The visiting list proper is preceded by about thirty pages of useful tables, hints, and compilations. The arrangement is convenient, the paper, printing and binding are of good quality.

The Physician's Visiting List. P. BLAKISTON'S SON & CO., Philadelphia, 1898.

A reminder that another year has flown and that the practitioner must provide for keeping his list of calls for 1899. This little book can be had as a weekly, a monthly, or a perpetual edition (without dates). It has about fifteen pages of tables in front of the printed blanks.

A Pocket Medical Dictionary, Giving the Pronunciation and Definition of the Principal Words Used in Medicine and the Collateral Sciences, by GEORGE M. GOULD, A. M., M. D. P. Blakiston's Son & Co., Philadelphia, 1898.

As a medical lexicographer Dr. Gould has edited two or three valuable additions to medical reference books. Of its kind the present edition of the above work is complete. Printed on thin paper and well bound, the subject matter has been condensed into a convenient pocket volume. The same care in the pronunciation and definitions has been shown as in the larger volumes by the same author.

DYER.

Diet and Food, Considered in Relation to Strength and Power of Endurance, Training and Athletics, by ALEXANDER HAIG, M. A. and M. D. (Oxon.), F. R. C. P. J. & A. Churchill, London. P. Blakiston's Son & Co., Philadelphia, 1898.

In a small volume of some 80 pages the author argues for a restriction in the albuminoid foods and indicates the proper diet with relation to exercise

and occupation. Diagrams are used to elucidate the text, which is full of personal opinions and which defers only too much to other works written by the author.

DYER.

International Clinics; A Quarterly of Clinical Lectures. Edited by JUDSON DALAND, M. D.; J. MITCHELL BRUCE, M. D., F. R. C. P., and DAVID W. FINLAY, M. D., F. R. C. P. Vol. III, 8th Series, 1898. J. P. Lippincott & Co.

Like other volumes of this excellent series of clinical articles, the present compilation is well edited and the articles presented are of practical interest.

The Principles and Practice of Medicine. By WILLIAM OSLER, M. D., F. R. S., F. R. C. P., etc. Third edition. D. Appleton & Co., New York, 1898.

Dr. Osler has simply expanded the usefulness of his standard work on practice in a new edition. Many articles have been entirely rewritten; among them the article on vaccination presents a timely argument for its value as a measure of sanitation; not enough stress, however, is laid on the accidents from vaccination, nor the phase of carelessness in their occasion. The article on yellow fever is an excellent digest of the subject, where attention is called, and with due prominence, to the work of Drs. P. E. and J. J. Archinard and Woodson in their agglutination test. Dr. Touatre's excellent work is not mentioned, perhaps because of its date of appearance being too late for reference. The whole volume bears the stamp of the usual care exercised by its author, and still commends itself, as it always has, as a most excellent text-book and work of reference.

DYER.

PUBLICATIONS RECEIVED.

Materia Medica, Pharmacy, Pharmacology and Therapeutics, by W. Hale White, M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

Human Anatomy, edited by Henry Morris, M. A., and M. B.—P. Blakiston's Son & Co., Philadelphia, 1898.

Diseases of the Skin, by Malcolm Morris, M. D.—Lea Bros. & Co., Philadelphia, 1898.

A Compend of Obstetrics, by Henry G. Landis, M. D.—P. Blakiston's Son & Co., Philadelphia, 1898.

A Text-Book on Obstetrics, by Barton C. Hirst, M. D.—W. B. Saunders, Philadelphia, 1898.

Manual of Physiology, by G. N. Stewart, M. D.—W. B. Saunders, Philadelphia, 1898.

The Phonendoscope, Translations of Lectures Delivered by A. Bianchi, M. D., by A. Geo. Baker, M. D.—Geo. P. Pilling & Son., Philadelphia, 1898.

Acromegaly, by Guy Hinsdale, M. D.—William M. Warren, Detroit, 1898.

Transactions of the American Orthopedic Association, 1898.

The Sexual Instinct, by Jas. F. Scott, M. D.—E. B. Treat & Co., New York, 1899.

Manual of Bacteriology, by Herbert U. Williams, M. D.—P. Blakiston's Sons & Co., Philadelphia, 1898.

REPRINTS.

The Treatment of Chronic Endometritis—The Surgical Treatment of Appendicitis, by F. T. Meriwether, M. D.

Apocynum Cannabinum, The Vegetable Trocar, by T. S. Dabney, M. D.

State and Municipal Care of Consumptives, by S. A. Knopf, M. D.

De la Trachée-Thyrotomie dans le Cancer du Larynx, par le Dr. E. J. Moure.

Further Observations Regarding the Use of the Bone-Clamp in Ununited Fractures, Fractures with Malunion, and Recent Fractures with a Tendency to Displacement, by Clayton Parkhill, M. D.

Report of a Death Following Immediately an Operation for Nasopharyngeal Adenoids Under Chloroform, by Frank Whitehill Hinkel, M. D.

Some Observations of General Interest Regarding the Course and Management of Cataract, by J. H. Woodward, M. D.

Gastroptosis.—Transillumination of the Stomach with Demonstration on the Person.—Intestinal Auto-Intoxication.—Chronic Catarrh of the Stomach, by Chas. D. Aaron, M. D.

Argument Before the Commission to Revise the Patent and Trademark Laws of the United States, by Mr. E. N. Dickerson.

The Relation of Suppuration to Shortening of the Limbs in Tuberculous Diseases of the Hip Joint, by Russell A. Hibbs, M. D.

THE REASON WE PLAY.—According to a medical writer in the *Popular Science Monthly*, “play is the ontogenetic rehearsal of the phylogenetic series.”

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR NOVEMBER, 1898.

CAUSE.	White	Colored	Total
Fever, Malarial (unclassified).....	2	4	6
“ “ Intermittent	2	1	3
“ “ Remittent	4	0	4
“ “ Congestive.....	4	3	7
“ “ Typho	7	0	7
“ Yellow	13	7	20
“ Typhoid or Enteric.....	1	0	1
“ Puerperal	1	0	1
Influenza.....	0	0	0
Measles	0	0	0
Diphtheria	0	0	0
Whooping Cough	4	3	7
Apoplexy	10	1	11
Congestion of Brain.....	5	0	5
Meningitis	2	1	3
Pneumonia.....	27	19	46
Bronchitis	17	6	23
Cancer.....	8	6	14
Consumption.....	35	26	61
Bright's Disease (Nephritis)	24	12	36
Uremia	2	0	2
Diarrhea (Enteritis).....	12	6	18
Gastro-Enteritis	3	2	5
Dysentery.....	2	3	5
Hepatitis	1	0	1
Hepatic Cirrhosis	5	2	7
Peritonitis.....	3	1	4
Debility, General	2	1	3
“ Senile	22	13	35
“ Infantile	1	1	2
Heart, Diseases of	42	26	68
Tetanus, Idiopathic	0	0	0
“ Traumatic	2	1	3
Trismus Nascentium.....	2	7	9
Injuries	5	7	12
Suicide	2	1	3
All Other Causes	102	45	147
TOTAL	374	205	579

Still-born Children—White, 18; colored, 14; total, 32.

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

Death Rate per 1000 per annum for month—White, 23.03; colored, 30.75; total, 25.24.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.15
Mean temperature	57.00
Total precipitation.....	5.17 inches
Prevailing direction of wind, north.	

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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FEBRUARY, 1899.

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.]

SOME NOTES ON MEDICAL AND SURGICAL EXPERIENCES IN CUBA.*

BY DR. HAMILTON P. JONES, LATE ACTING ASSISTANT SURGEON UNITED STATES ARMY, CLINICAL ASSISTANT NEW ORLEANS POLYCLINIC, VISITING SURGEON CHARITY HOSPITAL, NEW ORLEANS; ASSISTANT DEMONSTRATOR ON CHEMISTRY, MEDICAL DEPARTMENT, TULANE UNIVERSITY OF LOUISIANA, NEW ORLEANS.

It was suggested to me by the chairman of the Scientific Committee that I give an account of the conditions prevailing in Cuba during the recent campaign, both surgical and medical.

I shall confine myself to my personal experiences and will present a simple narrative account of them.

On the fourth day of May I entered active army life with the Eleventh United States Infantry, at Mobile, Ala., with whom I remained almost a week. This camp was located back of Mobile in the high piney woods and was a well ordered and healthy camp, laid out and kept policed and clean, according to the regulations of the United States Army. Here the surgeon of the regiment inspected the sinks and cook tents twice a day, accompanied by the officer of the day, to whom all suggestions and complaints regarding the sanitary condition were made, and whose duty it was to see that the suggestions were carried out and the causes for complaint abated. Should the officer of the

*Read before the Orleans Parish Medical Society, December meeting, 1898.

day fail through neglect to do his duty to the surgeon, recourse was at once had to the colonel of the regiment—a contingency which I never saw arise. I go thus fully into this matter because the same conditions prevailed at Tampa Heights, just outside of Tampa. Both these camp sites were similar in that they were in the piney woods just outside of and were elevated above the general level of rather large cities; and more than this, each one had a comparatively wholesome supply of drinking water, which could not be readily contaminated by fecal matter. These camps were both exceedingly healthy up to the time of my going to Cuba. I remained nearly a month at Tampa.

On June 1, I was ordered to the First Division Hospital, which was organized under the command of Maj. Marcus W. Wood, General Kent's chief surgeon, with Maj. R. W. Johnson in charge, Lieut. Guy M. Godfrey in command of the hospital corps, Dr. Frederick J. Combe and myself on the staff.

The equipment for this hospital was procured by stripping the regimental hospitals of almost everything, a difficult task, as they had already been twice subjected to this ordeal, for the formation of the other two division hospitals. Operating tables and the like were procured without much difficulty from the medical supply depot at Tampa. Certain articles, such as blue flame oil burners for sterilization purposes, zinc tanks twenty gallons capacity, for holding sterilized water, small size round bar iron in eight-foot lengths for the manufacture of splints, etc., were either ordered or purchased in Tampa. About twenty-five hospital tents and about fifty officer's tents, all complete, were secured, and an ambulance train consisting of twenty perfectly new ambulances with new harness and four good mules each and driver, extra mules and an abundant supply of forage and grain and a competent Western train master were gotten together and organized. In spite of the shortness of time given for the organization of this hospital and its equipment, a little over five days, it was in a remarkable state of fitness for the work which was subsequently thrust upon it. Had we been allowed to proceed to Cuba prepared as we were, an infinite amount of suffering, labor and criticism would have been avoided, but the order directing us to embark *commanded us to abandon all tentage except flies and to leave behind our precious ambulances.* Had we had our ambulances in Cuba the failure to

furnish us with transportation would have been a matter of not the slightest importance. But the loss of our ambulances and the almost entire absence of any other form of transportation caused suffering, misery and death, the extent of which can only be appreciated by those who endured and those who witnessed it. Out of forty ambulance loads of our hospital stuff on board the transport *Santiago*, only two six-mule army wagon loads of the *most necessary* articles reached us in time to be of use during the fighting at El Caney, San Juan and the vicinity of *Santiago* on the 1st, 2d and 3d of July, and this was the only hospital in the field.

In getting their supplies aboard, the medical officers acted as stevedores, the supplies were put by themselves in the hold of the vessel, but became so disarranged that a day or two before we landed we knocked down about sixty bunks, near a port-hole on an upper deck and piled and assorted our supplies in this cleared space where they could be and were easily unloaded.

Except for some heat prostrations following some ill-advised practice marches made to give the men exercise while at Port Tampa, the health of the command was excellent. We learned more about heat prostrations and how to differentiate them from concussion after we reached Cuba. Our trip to Cuba was exceedingly pleasant, although rather too long, but even this was not without its pleasures, because the frequent stops from one cause and another enabled each man to bathe in the sea nearly every day.

The travel-rations furnished the men consisted practically of canned corned-beef, canned tomatoes, canned Boston baked beans, hard-tack and coffee and sugar. No lime-juice, so far as I know, was provided, although later the supply was abundant in the hospitals. I made it my duty to watch the physical condition of the well men from day to day, and particularly, as many of them had no means of looking after their teeth or the toilet of the mouth, I devoted special attention to the condition of the mouth, teeth and gums.

The diet on land consisted principally for some weeks of bacon, hard-tack, canned tomatoes, coffee and sugar.

Slight scorbutic symptoms began to show themselves to me about the 5th or 6th of July. These scorbutic symptoms never became very severe owing to the fact that after that date the

men foraged for limes and fruit. Many of the men owing to neglect of the teeth also suffered from gingivitis; both of which caused a condition of the gums at times very closely resembling that found in yellow fever.

I landed at Siboney on the morning of the 25th of June, after being nineteen days at sea. On the evening of the same day, acting under orders of Major Marcus Wood, General Kent's chief surgeon, I inspected the buildings in and about Siboney in order to find a suitable place for our hospital. A number of the buildings would have in a measure answered the purposes, but I reported them a menace to the health of our troops and a very probable source of yellow fever infection, and recommended their destruction. General Miles later had these same buildings burned, shortly after his arrival on the island, but not until quite a number of cases had arisen traceable to them.

The First Division hospital left Siboney on the afternoon of the 26th.

The ambulances had been left at Tampa, as before stated, and there was no transportation at Siboney or immediate prospect of securing any, although the necessity for immediately proceeding to the front was imperative. There was no way out of it but to pack with us as much as we could and then trust to luck for the balance; for example, I was on foot and loaded with my own rations and as much chloroform, dressings, instruments and drugs as I could stagger under, leading my horse which was also loaded with over two hundred pounds of hospital supplies. Each of the five medical officers attached to this hospital did the same thing, as did the thirty-nine hospital corps men who accompanied us, only the men in addition to their own rations and packs carried loaded litters of hospital supplies. We marched to the front by easy stages, each day going back to Siboney for more supplies, so that when we reached our final hospital site, on June 29, we had with us enough material to care for about two hundred seriously wounded men and were in advance of the entire army of invasion with the exception of a few pickets who were two hundred yards in advance on the Siboney road. We maintained this advanced position for two nights and a day, and when the troops went into action we found ourselves only 1200 yards to the rear of the vicinity where most of the casualties occurred. On the evening of the 29th two six-mule army

wagons brought more drugs and supplies, and together with what we had packed up on our backs, served as the total supply for the only hospital in the field during that fearful, bloody time, July 1, 2 and 3, when what was to have been a reserve hospital was called upon to, and did take care of the wounded of the entire army, as they were brought from the firing line. The surgical staff of this hospital stood at the operating tables, without rest or sleep, from 8:30 A. M., July 1, to 2:30 A. M., July 3, forty-two consecutive hours, and then got up at day-break and began again.

Our hospital was established in a field a little less than three miles from Santiago, on the Siboney-Santiago road. It lay between this road and a brook, a branch of the San Juan river. The camp was surrounded by a dense tropical jungle. The site of this camp was well chosen, and was, perhaps, as satisfactory as could have been found. We did not abandon our tentage in Tampa, but owing to lack of transportation there was tent shelter for only four operating tables and dispensary, two tents for wounded officers and wall and shelter tents for about two hundred wounded soldiers. Outside of a fair supply of instruments, operating tables and medicines and an ample supply of dressings of all sorts, our supplies were very limited. There were no cots, hammocks, mattresses, rubber blankets or pillows for sick or injured soldiers; the supply of woolen blankets was very limited, and was soon exhausted; and there was no clothing at all except a few shirts. There was no food for sick or wounded men except a few jars of beef extract, malted-milk, etc., which Major Wood brought with his private baggage and held in reserve for desperate cases. Such was the wretched equipment of the only field hospital in Cuba at the attack on Santiago, but the responsibility for its incompleteness and inadequacy can not be laid upon the field force or the medical department in Washington. We brought to the front everything we could get transportation for, and that our services and efforts in the field were recognized is attested to by the fact that Gen. Kent recommended the five surgeons attached to this hospital for promotion and brevet.

On the 29th of July a shallow well was dug about twenty feet from the bank of the brook and above its usual daily rise caused by the afternoon rains. This insured us a clean supply of water

which had percolated through and been filtered by the twenty feet of intervening sand. This water was then boiled for thirty minutes, and was finally filtered through a Berkfeldt filter, while boiling, and was placed in the zinc tanks, above mentioned, to cool. This procedure gave us a practically sterile and abundant supply of water, which, coupled with the almost universal use of the first aid packages, and the practice of modern conservatism and non-interference, gave us results unequalled in the history of field surgery.

The battle of Santiago began very early on the morning of July 1, Friday, and the wounded, most of whom had received first aid just back of the firing line, began to be received at the hospital in numbers about 9 o'clock, and the number constantly and rapidly increased as the hot, tropical day advanced, until at nightfall long rows of wounded were lying on the grass in front of the operating tents, awaiting examination and treatment, and this in spite of our incessant work at the operating tables. As George Kennon truthfully says, we were "completely overwhelmed by the great bloody wave of human agony that rolled back in ever-increasing volume from the battle line." Notwithstanding the fact that we were reinforced during the night by surgeons from the front, the morning of the 2d found a long line of 250 men, seriously or dangerously wounded, starved, half clothed; many of them had been lying there for hours, exposed to the chilly night air, and many more to lie for hours longer exposed to the fierce scorching sun, thirsty and hungry, and without protection from the heat. From that long row of suffering, wounded men no word of impatience or complaint came; some were undergoing the torture of the damned, and some were dying and knew it, yet they bore it with patient, quiet fortitude and tender solicitude and sacrifice to others, a display of heroism perfect and ideal. It was their splendid courage and fortitude that made their sufferings so hard to see. I have been often asked, how could the surgeons work for so great a time without rest? Well, I ask, how could a man rest with such a sight before him; when a man with a bleeding artery chides you for putting him on the operating table before attending to his companion? There were 1500 killed and wounded during the three days' fighting; considerably over 1000 wounded were received and treated at this hospital, and to have

done it properly there should have been at least a force of fifty surgeons and 300 hospital corps men attached to the hospital, instead of the five surgeons and thirty-nine hospital corps men with which the hospital started on the first. Many of the regimental surgeons who came back to us at night and worked would in the morning go back to the front and return the next night. Candles were used at night, and the often heard whistle of a guerrilla's bullet and the near-by crack of his rifle were not pleasant to the surgeon who stood with his back to a black tropical jungle. So soon as the wounded could bear transportation they were sent to Siboney, about eight miles to the rear. Every character of wound was seen, yet the majority of them were clean, perforating wounds without any explosive effects being visible, yet in a number of cases the explosive effects were very manifest, and oftentimes there would be extensive bruising of the soft tissues and great comminution of the bones. Brain injuries, as a rule, were severe and very fatal; there was nearly always some oozing of brain substance from the wound of exit. Face and neck injuries, unless some important structure was struck, did well, and it was surprising to see how some of the bullets could get through dangerous places and apparently do no great damage. Wounds of the chest and lungs, unless immediately fatal, nearly always did well. Abdominal wounds without perforation were simple, and over 50 per cent. giving evidence of intestinal injury or severe wounding of the other abdominal organs recovered without operation. Three laparotomies were performed; all terminated fatally. None of these three reached the hospital within eighteen hours of being shot, and their condition was such that they should never have been touched. The operative technic was bad and the facilities for this work poor. An hour or two spent on a laparotomy under such conditions might cost the lives of many which might otherwise be saved. Time was too valuable to waste in any such manner. Wounds of the extremities did splendidly, as did wounds of all joints, and I have recently seen men in New York and Boston and other places with knees as good as they were before they had been shot through. Three major amputations were performed. One for a fearful shell wound of the thigh, hip-joint amputation. Fatal. One of lower thigh for traumatic aneurism of popliteal and consequent gangrene. One of leg for gan-

grene due to an Esmarch bandage, which was used as a tourniquet and which remained on for about twelve hours. Both recovered. We ran short of splint material, but Dr. Kirkpatrick, surgeon of the Twenty-fourth United States Infantry, happily discovered that the stem of last year's leaf of the Royal palm was an almost ideal splint material, available in abundance.

In this hospital, wounded Spanish captives, Cubans and Americans were treated as wounded men, without regard to nationality. Nearly every artery was ligated, repeatedly; a few trephinations and elevations were done with success. Our asepsis seems to have been as good if not better than that obtained in the best hospitals in the United States. The soldiers suffered needlessly from the promiscuous cutting and tearing of their clothes. There were no others to replace them. On July 2, Miss Clara Barton personally established a kitchen and rendered magnificent service in comforting and feeding the sick and wounded at our hospital. The care of the wounded, who were compelled by circumstances to be placed on the ground, most of them exposed to the sun and rain, was a great source of anxiety, and the work of redressing wounds and resetting fractures, catheterizing distended bladders and the general treatment of the cases was enormous. Owing to the nature of their wounds many of the men had to be given water and food through the stomach tube. The sterilized dressings furnished by the manufacturers were aseptic.

It would take too long to go over the character of work done at that hospital, the meeting of emergencies, the transportation of wounded and the care of them, in a paper of this kind, but I hope soon to be able to present to you on lines similar to those of this paper, an account of the work done there, and of the men, their bravery, wounds, sufferings and fortitude. While we were marching backward and forward for and with hospital supplies, the soldiers jeered us and called us the hospital pack train and all that, but I have had more than one poor wounded fellow tell me how little he knew when he did it. To have witnessed what I did in that hospital was an awful thing, but not so awful as it was to see almost an entire army weakened and broken-spirited through the effects of the climate, exposure and disease.

The prospect of a fight and the flush of victory kept the men in good tone, and even supported many men already beginning

to show the effects of the heat and the daily rains, malaria and other diseases, and it was not long after the truce was declared that they began to fall sick in hundreds, and so rapid and general was the spread of sickness that it more than once made me laugh in my sleeve to think of our having the nerve to demand a surrender. I honestly do not believe that 45 per cent. of our forces could have stood the strain of a four hours' fight, without being as badly knocked out as though they had been shot.

I remained with the First Division Hospital until the 13th of July, but on the 7th of July I was made yellow fever expert at the front by Colonel Pope, chief surgeon of the Fifth Corps, and it was on that day that I saw the first cases of yellow fever I had seen in Cuba, at Major Crampton's Fever Hospital, next to General Shafter's headquarters, and across the road from the field hospital.

Although there was a truce at the time, our men, who had thoroughly entrenched themselves, were lying on their arms in the trenches just as though active hostilities were in progress. These trenches, long, narrow ditches, hastily dug, with the earth thrown on the enemy's side for protection, were, many of them, very poorly drained, owing to the nature of the ground and military necessities, and all of them became quagmires at times, owing to the almost daily downpours.

The turning up of this fresh soil, most of which had been camped on recently by the Spanish, contributed its share of malarial poison, augmented by the close proximity of large numbers of Spanish dead, buried in the near-by shallow trenches abandoned by the Spanish on July 1. Santiago refugees, laden with household goods and goods, heirlooms, old letters and papers of value, poultry, dogs, cats and yellow fever germs, began pouring through our lines toward El Caney and Siboney, where they received food and a warm, hospitable welcome. These unfortunate people were permitted to mingle freely with our men and had unlimited opportunity, and did unwittingly, spread the yellow fever infection amongst them, although the houses were the most dangerous sources of infection.

The water supply of our troops was drawn from small mountain streams running through the rather level valley through which we passed, and these streams were used for the laundry work and bathing of over 16,000 men, and owing to the almost

daily rains and absence of sinks, for some days, were also the sewers of the men and animals of the expedition, many of whom had brought with them to Cuba the seeds of typhoid, dysentery and other diseases.

Taking all these things into consideration, as well as the fact that it was almost an absolute impossibility for the men in the trenches to get anything hot for the first few days in July, the winter clothing of the men, their almost constantly drenched condition, their inability to procure dry clothes, or to build fires by which to dry themselves, and the fearfully hot days and cold nights, it was small wonder that sickness was rife to an alarming extent.

My duties carried me into almost every regiment on the front, whither I went armed with a bottle of nitric acid and a test tube, a watch and a thermometer. At the outset of my work, Colonel Pope and my dear friend "Bunkie" (Dr. Frederick Combe) were the only men who believed in my diagnosis of yellow fever, and whose loyalty to me I shall never forget. My position was an exceedingly difficult one, requiring the utmost tact and discretion, and involved not only the breaking of many diagnoses and the very frequent calling down on my head of ill feelings and bitter discussions, but involved responsibilities so great as almost to warp my judgment and weaken my convictions. Fortunately, I was morally certain of my diagnosis, and was in that happy position where, having done my duty, I could afford to wait for the other fellow to shoulder the responsibility. I later had the melancholy pleasure of having some of the medical men who doubted my diagnosis most strenuously send me some of the worst cases I received at my hospital.

Up to the time of my taking charge of the yellow fever work specially, the patients had all been sent either directly or indirectly through Major Crampton's hospital to Siboney, irrespective of diagnosis. I was ordered to set out at once to instruct such of the regimental surgeons as were not familiar with the disease in its early diagnosis, isolation and treatment, and to pick out all cases wherever found, and to see that they were isolated and transported to the rear as far as practicable. This work was hard, physically as well as mentally, and frequently caused me to ride twenty or more miles a day.

On July 13, I established what was known as Jones' Yellow

Fever Hospital, on the Siboney road, about three miles from Santiago. Here the conveniences were for the first few days of the most primitive character. The men for several days lay on the ground in their shelter tents, which were frequently flooded by the terrific rains to such an extent that I have often seen men with high fever lying in the water one or two inches deep. Cooking utensils were luxuries at this hospital. My main soup pot was a stolen officer's bath tub, which he had carefully brought to the front over the end of a barrel of sea biscuits. Good cooks were as scarce as hen's teeth, and proper food for the sick very limited. But we soon learned to make a very good line of broths out of ground strained canned baked beans and the like, which offered a variety to the poor fellows, if not nourishment. Malted milk was to be had in small quantities, and did splendidly.

At one time I had at this hospital 150 serious cases of yellow fever, one urinal, one chamber, one bed-pan and several deaths as a result of going to the sinks. Supplies of all kinds were very limited at first and some drugs were exceedingly hard to get at all times, although it was rarely the case that it was not possible to substitute some almost equally serviceable drug for that asked for. I always made it my business to go to the supply depots and obtain what I required in person, and frequently I came back to my hospital with a far better supply than I had set out to obtain. Alcohol, whiskey, brandy and gin could always be had in sufficient quantities, and I think that a quarter of a ship load of castor oil was sent to Siboney. Nearly all drugs were put up in tablet form, which was very convenient for dispensing. Of course it was necessary to crush these tablets before administering them. Certain set formulas in tablet form, like the camphor and opium pill and the carminative pill, were used too freely and to the positive injury of a great number of men. It always seemed more rational to me to relieve the causes of the diarrhea and dysenteries by a good free purge or irrigation of the bowels rather than to relieve temporarily the pain by the use of an opiate.

All cases of intestinal disturbances and fever were kept on a liquid diet.

Diarrheas were purged and then given intestinal antiseptics, carminatives and astringents.

Dysentery was treated in very much the same manner, except that I used ipecac, with marked success, in large doses of the powder or fluid extract, and irrigated the large bowel with two or three gallons of a warm sterilized solution of permanganate of potash, 1 to 2000, two or three times a day, or a solution of nitrate of silver was used. In fact, the general lines of treatment followed by me were similar to those usually practised. In regard to yellow fever, I followed an expectant plan, meeting conditions as they arose, used intestinal antiseptics and a starvation diet. This latter was not difficult to impose.

Simple uncomplicated attacks of any given disease were exceedingly rare. The complicating diseases were intercurrent in most instances; frequently they superseded the original attack, and often, followed closely on the establishment of convalescence. A man once taken sick never seemed to be able to get well, but went from one disease to another, each succeeding attack rendering him less able to recuperate or to withstand his next disease. From being a body of men having the highest morale and tone, our soldiers, through the influence of neglect, the climate and disease, became depressed and despondent, and many of them seemed to have only the purely animal instinct left, and the regulation of their bowels became almost a monomania; it was rare to find a man who did not wish to have his bowels either moved or checked.

In the fatal cases I held post-mortems, confirming my diagnosis of yellow fever, and oftentimes found serious complications, although, strange to say, I never found an abscess of the liver.

Malaria complicated, probably, 90 per cent. of the cases, and an equal percentage had either loose bowels or well marked diarrhea or dysentery. The following is a crude classification of some 265 cases treated by me. I treated many more, but these will serve to show the variety of diseases and mortality.

	Cases.	Deaths.	Percentage of Mortality.
Yellow fever.....	185	20	10.8
Yellow fever complicated by typhoid and malaria.....	4	2	50
Typhoid fever.....	10	2	20
Dysentery.....	15	.....	.....
Diarrhea.....	10	.....	.....
Appendicitis.....	1	.....	Operation..
Rheumatism, acute.....	5	.....	.....
Malaria, uncomplicated.....	35	.....	.....

Eight cases of yellow fever died on day of admission. Three days before I left Cuba I procured a microscope and was able to examine the blood and urine of forty miscellaneous cases. In every instance I found the malarial organisms, those of the intermittent type being most numerous. In six or seven cases of yellow fever I found the estivo-autumnal form, and I was able in two fatal cases of typhoid fever complicated with yellow fever to find malarial organisms in the blood before death and at the post-mortems the characteristic lesions of typhoid fever and yellow fever.

Clinical Reports.

TWO CASES OF PODALIC VERSION UNDER DIFFICULT CIRCUMSTANCES.

BY EDWARD D. NEWELL, B. S., M. D., KING, LA.

In November I was called to see a colored multipara, aged 28, who had been in labor 36 hours; membranes had been ruptured for 24 hours. The child was in abdomino-anterior position, right hand protruding, the cord prolapsed, cold and pulseless, uterus firmly contracted and patient very weak. She was in a log hut 16 by 16 feet, with but one opening. In this room were two beds, one mattress on floor, boxes, barrels, innumerable sacks, filth-laden clothes, greasy, blackened tables that I had to use; chairs, cooking utensils, and an ignorant man and two old women.

Assistance was impossible, so I at once began to clean my hands and prepare to deliver by turning. I began the anesthetic and, after I had gotten her thoroughly under, turned the anesthetization over to her husband. I hurriedly washed my hands again, and introduced, after much difficulty, my hand into the uterus, but that organ was so firmly contracted that my hand was powerless. Instructed man to give more chloroform and felt pulse with left hand and found it almost gone; had to remove hand from uterus and restore my patient. I again introduced hand into uterus, which was still painfully

contracted, and at same time held patient's pulse and supported uterus externally with left hand. In this way I directed how to give the chloroform and endeavored to reach and bring down a foot. After working in this way for from one-half to three-quarters of an hour, I brought down a foot. Immediately quit giving the chloroform, held hand on uterus to stimulate it to contract, and in half an hour the body, head and placenta were expelled with almost one contraction. There was no hemorrhage. The baby was fully developed. The uterus was markedly to the right of the median line. To more clearly depict the ignorance in my surroundings, the creolin that I left to use as vaginal injection was *drunk* by the patient.

CASE II. Just one week after the above case I was called at night to make a ten-mile ride. Found the surroundings very similar to those in above case, except the company were more intelligent, and, instead of three, the room was literally filled with her negro friends. The more serious the case, the more solicitous they become and the more they crowd into these little cabins. I found the patient squatting on the floor before the fire, as is their custom during labor. The child was in abdominal-anterior position, right hand protruding, cervix rigid and firmly contracted around body of child, membrane had been ruptured for forty-eight hours; pulse very weak. Strange to say, she was thirty years old and a primipara. I proceeded just as in first case, but found it almost impossible to introduce hand into uterus, and patient so very weak I was afraid to push the chloroform, as I had no one to assist me. Realizing that she could not continue much longer without relief, I gave strychnin, nitroglycerin and brandy hypodermically and pushed the anesthetic. I had to remove my hand from uterus *three times* to revive my patient. Finally her pulse improved and the uterus relaxed enough for me to work more favorably, although my hand was benumbed from pressure. I knew that if I gave the anesthetic to complete relaxation of uterus I would kill my patient, especially as it was given by an ignorant negro—a machine. I was so tired physically from the mean ride on horseback, the exertions of the right hand in uterus and the strained, stooping position, that I could not myself appreciate the delicate move of the pulse. After working in this way for one and a half to two hours I brought down foot, and in half

an hour more contractions returned and she was delivered without any further trouble. In this case pulse in cord was beating faintly when I began, but long before delivery had ceased. The child was fully developed.

In both these cases, immediately after expulsion of placenta, I injected ergot aseptic (P. D. & Co.); the effect was prompt and complete, no hemorrhage in either case and no pain or abscess followed the injection. The second case, an hour or less after delivery, had a very hard chill that I attributed to malaria, as she had been suffering with it all fall. In both cases I washed out uterus with one gallon of hot creolin solution. Notwithstanding the filthy surroundings of my patients and the fact that I had to remove my hand so often, neither case suffered from puerperal fever and were up in *their* usual time—within one month.

The obliquity of the uterus in Case II was very marked.

Clinical Lecture.

STATISTICS OF OPERATIONS FOR APPENDICITIS, WITH NOTES OF SEVERAL INTERESTING CASES.*

BY JOHN B. DEAVER, M. D., AT THE GERMAN HOSPITAL, PHILADELPHIA.

It seems proper to begin the first clinic of the year by operating upon one of a class of cases in which we are greatly interested. The subject is more interesting at the present time because of the prevalence of "grip." There is no doubt that this is an influential factor in causing inflammation of the appendix. There are diagnoses of typhoid fever and of gastroenteritis being made when probably some of them are cases of appendicitis. I am led to speak of the subject, and to give statistics because of the statement of a well-known physician of this city that the appendices of one hundred well persons could not be removed without a loss of two per cent. of the cases. This year just ended we have operated on 117 cases of chronic appendicitis in this hospital and on 118 last year. Of these 235 cases we have lost two—both last year. So there have been 117 straight

* Reported for the JOURNAL.

cases without a death. In many of these cases there were extensive complications, some of them having perforation of the bowels, and these are serious cases. The percentage in acute cases varies from 20 to 25 per cent, Dr. Richardson, of New York, reporting over 700 acute cases with a mortality of about 22 or 23 per cent. From this it appears that many people are dying every year that ought to be saved. I know that physicians for whom I have the highest regard hold different views from mine on this subject, but what I say is from a large experience, and not from theory. Practically the surgeon should know two things about the subject: First, that the patient has appendicitis; second, that the appendix should come out. Of course there are exceptions to this statement, examples of which we shall mention, but that is a good working rule.

In this young man we expect to find no pus, and will operate with but little constitutional effect. I make an incision one inch in length, going through the rectus muscle. The fibres of the muscle are separated, not cut. Putting in my finger when the peritoneum is opened, I feel for the cecum, and as I draw it out keep reducing at the same time until the appendix is delivered. Having delivered the organ the meso-appendix is transfixed and ligated. The appendix is then cut off with a pair of curved scissors, but instead of leaving a stump I cut out its insertion in the intestine, leaving simply a hole or perforation of the intestine. This perforation is then carefully sutured. I do this in order that there may be no risk of leaving infected tissue in the stump. True there may be infected tissue in the intestine, but it is large and well drained, and the inflammatory material can be taken care of.

As I remove the retractors the separated fibres of the rectus appose themselves. They do this so exactly that in this small incision stitches would not be so absolutely necessary. But they will be put in as a matter of course. I mention this as an explanation of why I make the opening through the rectus instead of in the linea semi-lunaris. This is also a strong indication for an early operation when there is no pus, when the work can be done through a small opening and thus lessen the risk of ventral hernia.

Now it must not be supposed that all cases are easy to decide upon. There are extenuating circumstances which do not call for immediate operation in all cases. These must be taken into

consideration before a decision is made. A young girl operated on yesterday is an instance of this. She was taken with the grip, developed appendicitis, and along with it some bronchitis. Her temperature was 100, pulse 130, she had sonorous breathing and respiratory murmur. Abdominal wall was rigid on right side, tender at one point, with pain on coughing. I sent for her physician and we had a consultation after thoroughly examining the patient. Her chest was about the same as the day before. One symptom was more unfavorable and that was that her pulse was increasing. We decided that it was better to accept the risk of pneumonia and operate. Chloroform was used as the anesthetic and she was operated upon at 5 o'clock. The appendix was perforated and pus was present. Her temperature was 100 when operated upon. At 8 o'clock it was $98\frac{1}{2}$, and her pulse down to 112. To-day her temperature is normal and she is doing splendidly.

But not all cases are as easy as this to decide upon. We have another case now of a girl who took the grip and shortly after general abdominal pain, which finally centered in the right iliac fossa. We finally determined, on account of her chest condition (she had a frightful cough) and because the local condition had not assumed a serious aspect to defer operation for the present. The rigidity and tenderness are not so marked now, and she has typhoid fever spots, enlarged spleen and yellow stools. Personally I believe operation to be the proper thing. If she is going to have typhoid fever she ought to be relieved of this complication. This can be done, as we know from experience that we can take out the appendix, and can put the patient in the bath tub right along, if that is the method of treatment, and have them recover. I believe this to be good surgery under the circumstances.

We have, then, mentioned three classes of cases. The first is the young man operated upon, where the diagnosis was easy and the operation clearly indicated. The second one, that of the girl operated upon yesterday, where other conditions had to be considered, but where the course to be pursued was comparatively clear. The third is that of the typhoid fever case, where there is a great deal of trouble in regard to a decision. These have been brought forward to show that some cases require a considerable amount of thought, and that it is not safe to jump at conclusions.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

CAN EDUCATION BE RESTRICTED?

The secular and judiciary outbreaks in this country and in England over so-called immoral literature is an interesting object lesson.

We refer to that class of literature which is intended only for the higher plane of readers; for those possessed of intellectuality and of mentality enough to understand them.

Boccaccio wrote his Decameron from a sense of obligation and duty to his people, perverted to such a degree as to be made the object of ridicule and shame at his hands. His work is now a classic. G. W. M. Reynolds likewise pictured the profligacy of the Georges and their courts, from a like inspiration to bring about reform.

Wm. T. Stead, a few years back, horrified and startled all the English-speaking people by the disclosures made in his daily paper, which pointed out prevalent and perverted customs of the day.

Intelligent medical thinkers and alienists saw in these disclosures only the beginning of a field of study of a class of diseased human beings, who were often classed as criminals, when they were only morbid types.

Among the thousands of physicians who practise medicine and who are supposed to know disease, there are few indeed who even think of the perversion of sex, as associated with disease. Anthropologic investigation appeals to them as little as the philosophy of Euclid's law or the explanation of the canals on Mars.

This is no reason, however, why they should not be educated, and incidentally it is no reason why they should not know the origin of a large percentage of human ills.

When a prudish part of the public, acting as the moral policeman of the rest of human kind, allows the daily scavenger-mon-

gering newspapers to exist, the attack upon scientific work along legitimate educational lines seems paradoxical.

We are anxious to know what the exact reasons can be for the suppression of the work of such men as Havelock Ellis.

We know that the ignorance of the average judiciary is largely responsible, and that it is this ignorance which is availed of by the sanctimonious religio-reformists.

One of the most intelligent jurists in the United States expressed surprise at the information that syphilis could be acquired innocently, and that in the sixteenth century there had been epidemics of this disease in England and Scotland.

The whole group of Jacks, "The Ripper," "The Hair Snatcher," "The Ink Slinger," etc., was handled purely as a criminal class, when their type is known as one of perverted sexual instinct.

Does it promote civilization, reduce crime, restrict disease, improve the morals and the intelligence of a civilized people to reduce education to Puritanic lines?

Does it make a child less healthy to be told the physiologic laws which govern its life?

Does it make a man less honest to tell him what crime is?

Can it make all people less moral to tell them in what immorality consists?

Works on medical subjects have been written for decades, carrying in their pages words and definitions, discussions and illustrations, which, to the vulgar, morbid mind, would satisfy a vitiated sense.

Sexual perversion is historic, it is as much a disease as measles, and any light on its phases, their origin, course and their care and treatment should be so dispensed that every medical man and every jurist should be taught the variations.

It seems almost anomalous that in this almost twentieth century there should be a squeamish timidity upon the part of our morality guardians lest the truth about a growing evil should be told.

The development of education and of the world's thought was never advanced by restrictions. Education is not a crime, and where methods of advanced thought simply happen to be out of the ordinary, and are laid along lines of special study, ignorance of their necessity and of their purpose should not force upon such work the odium of reproach and the verdict of suppression.

We are not arguing for any and all prurient literature, but for the work of men recognized in the field of science, who have feasted in the realms of philosophy with Huxley, Bastian, Darwin and their pupil followers.

It is the absence of knowledge which tends to beget bestial instincts, and the education of even a brute improves its habits and raises its grade in the law of species.

So long as the courts are open to every prude, and until justice is made dependent upon the education which just now the dispensers of that commodity use as a footstool, we can not hope for a hearing.

Meantime the asylums for pauperism and for the insane must share with the prison the burden of a class of uninvestigated, morbid kind, the constant *mènè, mènè* of blind, perverted, self-satisfied judiciaries.

THE BEAM IN OUR EYE.

The JOURNAL has already scored the lay press for accepting and publishing advertisements more than questionable as to honesty and morality. More can be said about these quasi-medical notices which render a newspaper unfit for admittance into a respectable household, but we must first look nearer home and give attention to the advertising pages of some medical journals. Many of them in this country contain notices of unethical preparations and prostitute even their original matter departments by inserting puffs of remedies of doubtful utility. But it was left to a German journal to throw decency to the winds by publishing an immoral as well as an unprofessional and probably illegal advertisement.

A recent number of the *Centralblatt für Chirurgie* of Berlin prints the following:

GREAT PROFIT FOR DEALERS!

For the Malthusian.

LATEST VAGINAL POWDER BLOWERS AND WOMEN'S DEFENCE.

German Patent No. 100,850.

Dr. H., a well-known gynecologist, says: "I rejoice that a beautiful and simple means of protection of this kind for suffering women could be made."

Full testimonials and prospectus free.

We hope that the profession of Germany will speak out against this shameless and indecent commercialism in such tones and will bring to bear such pressure against the publishers of the Berlin journal that the objectionable advertisement will at once be discontinued.

Medical News Items.

THE FOURTH ANNUAL MEETING OF THE WESTERN OPHTHALMOLOGIC AND OTOLARYNGOLOGIC ASSOCIATION will be held in New Orleans, February 10 and 11, 1899, at the Polyclinic.

The following preliminary program has been furnished:

OPHTHALMOLOGIC SECTION.

Dr. George T. Stevens, of New York, will give the address before the section on Ophthalmology.

Dudley S. Reynolds, Louisville, Ky., Treatment of acute and chronic glaucoma.

Discussion by John F. Fulton, St. Paul, and Charles W. Kollock, Charleston, S. C.

B. E. Fryer, Kansas City, Mo., Profuse hemorrhage subsequent to extraction of senile cataract.

R. F. LeMond, Denver, Colo., Ulcerative keratitis and how to cure it.

H. I. McMorton, Minneapolis, Minn., A Study of conjunctival ulceration.

J. A. Mullen, Houston, Texas, The percentage of color blindness to normal color vision as computed from 308,919 cases.

Hamilton Stillson, Seattle, Wash., Some experiments with the giant magnet.

K. K. Wheelock, Fort Wayne, Ind., Congenital arrest of development of the cornea.

A. R. Amos, Des Moines, Iowa, Luxation of both lenses giving rise to glaucoma.

J. Ellis Jennings, St. Louis, Title later.

H. H. Brown, Chicago, The etiology and importance of iritis.

Cassius D. Wescott, Chicago, Some experiences with Dr. Gould's method of prismatic exercises.

H. V. Würdemann, Milwaukee, A report on operative treatment of high myopia.

Discussion by Casey A. Wood, Chicago, and B. E. Fryer, Kansas City.

George F. Keiper, Lafayette, Ind., Treatment of the diseases of lachrymal duct by cataphoresis, with exhibition of cupped sounds.

- W. H. Baker, Lynchburg, Va., Retinoscopy.
 A. Alt, St. Louis, The pathology of cataract.
 E. E. Hamilton, Wichita, Kas., Refraction of trachomatous eyes.
 S. S. Ledbetter, Birmingham, Ala., Keratitis herpetica.
 J. J. Kyle, Marion, Ind., An ophthalmologist's experience with the army.
 E. C. Ellett, Memphis, Tenn., Series of cases of malarial keratitis with reports of blood examinations.
 J. R. Robinson, Colorado Springs, Title later.
 G. A. Wall, Albuquerque, N. M., Retinal detachment, loss of vision, recovery.
 Casey Wood, Chicago, Glioma of the medulla, with report of autopsy and microscopical examinations.
 W. A. Fish, Chicago, Title later.
 James M. Ball, St. Louis, Large tumor of the brain encroaching on the motor area and causing few symptoms save optic neuritis, with remarks on the value of double neuritis as a sign of brain tumor.
 L. R. Culbertson, Zanesville, Ohio, Case of Bell's palsy and epilepsy cured by correction of ametropia and heterophoria.
 Ellett O. Sisson, Keokuk, Iowa, Injuries of the eyeball, with report of cases.
 W. E. Driver, Norfolk, Va., Best vision after cataract extraction.

OTO-LARYNGOLOGIC SECTION.

Dr. Charles E. Sajous, of Philadelphia, will give the address before the section. The subject for discussion is the Diagnosis and Treatment of Incipient Laryngeal Cancer, the discussion being opened on the Diagnosis by H. W. Loeb and S. S. Bishop; on the treatment by Wm. Scheppegrell and George Knapp.

Thomas F. Rumbold, St. Louis, Mo., Synopsis of the functions of the Eustachian tube, mastoid cells, tensor tympani and stapedius.

Hamilton Stillson, Seattle, Wash., A case of temporal abscess drained through the attic after ossielectomy and currettement.

M. A. Goldstein, St. Louis, Mo., Title later.

W. L. Dayton, Lincoln, Neb., Tubercular ulcers of the pharynx.

E. C. Ellett, Memphis, Tenn., Collective investigation as to relative frequency of adenoids in different parts of the country.

K. K. Whelock, Fort Wayne, Ind., Vicarious menstruation through the intact external auditory canal.

S. S. Bishop, Chicago, Ill., Title later.

George Knapp, Vincennes, Ind., Diagnosis and treatment of tubercular laryngitis.

Augustus McShane, New Orleans, La., The surgery of the accessory sinuses of the nose.

Wm. Scheppegrell, New Orleans, La., The importance of early recognition and treatment of catarrhal diseases.

D. Milton Greene, Grand Rapids, Mich., Fifty mastoid operations, including four brain abscesses and one perforation of the sigmoid sinus.

W. L. Ballenger, Chicago, Title later.

N. H. Pierce, Chicago, Indications for operative interference in chronic suppurative otitis.

Hal Foster, Kansas City, Congenital nasal atresia.

W. T. Grove, Eureka, Kas., Tuberculosis of tonsils, pharynx and larynx.

Fayette C. Ewing, St. Louis, Mo., The diagnostic importance of cough.

Edwin Pynchon, Chicago, The offending middle turbinal.

The officers of the association are as follows: Dr. E J. Colburn, president; Dr. W. Scheppegrell, first vice president; Dr. Casey A. Wood, second vice president; Dr. H. Gifford, third vice president; Dr. Thos. A. Woodruff, secretary; Dr. W. L. Dayton, treasurer.

Committees: Program Committee—Dr. F. M. Rumbold, chairman; Drs. D. V. Wurdeman and H. Gifford.

Publication Committee—Dr. Thos. A. Woodruff, chairman; Drs. A. Alt and M. A. Goldstein.

Committee on Admissions—Dr. G. Knapp, chairman; Drs. Casey A. Wood and E. Ellett.

Arrangement Committee—Dr. W. Scheppegrell, chairman; Drs. Isadore Dyer, Otto Joachim, Augustus McShane, Paul Reiss, Chas. Chassignac and John Callan.

Reception Committee—Dr. Chas. Chassignac, chairman; Drs. J. D. Bloom, E. T. Shepard, Rudolph Matas, F. Loeber; W. Brickell, Frederick Parham, Q. Kohnke and F. Formento.

THE PRESIDENT OF THE LOUISIANA STATE MEDICAL SOCIETY has issued a call for a meeting to consider and propose two lists of names which will be presented to the Governor for the appointment of two members of the State Board of Medical Examiners to fill the vacancies caused by the resignations of Drs. T. S. Kennedy and J. C. Egan.

The meeting will be held in New Orleans, on February 13, 1899, at 3 P. M., at the rooms of the Orleans Parish Medical Society. All members are urged to attend.

EXAMINATION FOR UNITED STATES ASSISTANT SURGEONS.—A board of officers will be convened at the United States Marine Hospital, Chicago, February 14, 1899, for the purpose of examining candidates for admission to the grade of assistant surgeon in the United States Marine Hospital Service. Candidates must

be between twenty-one and thirty years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.

PROGRESSIVE MEDICINE is to be the title of a new quarterly, to be published by Messrs. Lea Bros., and to be edited by Dr. H. A. Hare. The first number will appear on March 1.

THE NORTHWESTERN OHIO MEDICAL ASSOCIATION adopted the following resolution at its meeting of December 9, 1898:

Resolved, That Dr. Reed is hereby requested to submit his address on "Christian Science, a Sociological Study," for publication in such form that it may become available, at small expense, to physicians, clergymen, educators and others, for distribution in their respective communities.

The work is aimed at the education of the laity upon the impositions of this type of quackery, and the author, as a member of the Ohio State Medical Board, is conducting a spirited campaign against all sorts of quacks and quackery. The full title of the book and the publishers are as follows:

Christian Science, a Sociological Study, by Charles A. L. Reed, A. M., M. D. McClelland & Co., Publishers, The Groton, Cincinnati, Ohio.

THE FACULTY OF THE KENTUCKY SCHOOL OF MEDICINE announce that they have bought the entire interest in the property of this school.

DR. FREDERICK LOEBER, of New Orleans, was recently decorated by the Emperor of Germany with the Order of the Crown. The distinction has been conferred because of the identification of the doctor with the German interests in this city and is a deserved recognition.

DR. JOHN GUITERAS, Professor of Pathology in the University of Pennsylvania, noted as a yellow fever expert, has resigned his chair, to take effect next October. After spending some time abroad he intends to reside and practise in Havana.

THE SHREVEPORT MEDICAL SOCIETY has unanimously nominated Dr. T. G. Ford as a candidate for election by the State Medical Society to the list of names to be presented to the Governor to fill the vacancy caused by the resignation of Dr. Egan from the State Board of Medical Examiners.

MORTUARY.—Among the recent deaths in the medical profession we note those of Dr. J. Albrecht, the veteran chemist; Dr. Alceé Chastant and Dr. J. J. Diet, all of this city.

DR. R. L. ARMSTRONG, SR., died at Pleasant Hill, La., on January 4, aged 75 years. The doctor had been a resident in Louisiana for many years and was much liked in his community.

THE JOURNAL has just learned of the death of Dr. Edward D. McDaniel, of Mobile. Owing to his absence at the time, last summer, his demise passed unnoticed. Dr. McDaniel was well known in Mobile, and was for some years connected professionally with the Medical College of Alabama. He was 76 years old at the time of his death.

THE NEW ORLEANS POLYCLINIC, after the holiday recess, reopened on January 9, and will continue until May 13.

THE PENNSYLVANIA STATE BOARD OF HEALTH has issued a circular letter on the subject of small-pox to every local board of health in that State. The following are among the recommendations to prevent the spread of the disease should it arrive:

“ First—Vaccination of all school children, if the law of 1895 has not been already complied with by the School Board.

“ Second—The offer of free vaccination to all who are unable to pay for it.

“ Third—Appeals to the general public to give themselves this protection.

“ (Note carefully that when the law uses the term vaccination it means the insertion of vaccine virus into the skin, and not the administration of that or any other substance by the mouth.)

“ Fourth—Warning the public not to expose themselves unnecessarily to this infection.

“ Fifth—Providing themselves with efficient disinfecting apparatus, and instructing the health officer or his subordinates in its use.

“ Sixth—Providing a ‘ Contagious Disease Hospital,’ to which cases which can not be cared for in their own homes with safety to the community may be at once removed. Attention is called

to the circular on emergency-hospitals, which accompanies this letter.

“Seventh—The adoption of a regulation requiring physicians to report every case of eruptive disease, and the immediate investigation of the same by a physician for the purpose. If there is doubt about the diagnosis the patient should be strictly quarantined provisionally, and the secretary of the State Board at once notified, in order that the true nature of the case may be established at the earliest possible moment.”

NEW LABORATORIES are contemplated at the University of Pennsylvania at a cost of \$300,000 for building and equipment, a large part of the fund to be contributed by alumni of the medical department. The building will be constructed on three floors, devoted to physiology, pharmacology, and pathology, respectively.

THE PSYCHOLOGICAL SECTION OF THE N. Y. MEDICO-LEGAL SOCIETY held an interesting meeting January 18, at the Waldorf Astoria Hotel, New York.

The section embraces the study of Insanity and its Medical Jurisprudence, Inebriety, Anthropology, Criminology, Sociological Studies, Clairvoyance, Telepathy, Experimental Psychology, Hypnotism and the claims of so-called modern Spiritualism, embracing the whole field of Psychological Research in its relation to and with forensic medicine.

AT THE MEETING OF THE AMERICAN DERMATOLOGICAL ASSOCIATION in June next the following will be the topic for general discussion: The Rôle of Pus Organisms in the Pathologic Processes of the Skin.

THE SOUTHERN MEDICAL JOURNAL is the title of a neat periodical edited by Dr. J. W. P. Smithwick and published in La Grange, North Carolina.

IN “DR. THERNE,” Rider Haggard has created quite a strong reaction against the popular movement for anti-vaccination. It seems that the book in some parts is devoted to the correction of popular fallacy in this regard.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

GENELLA'S MODIFICATION OF THE LAPLACE FORCEPS FOR INTESTINAL ANASTOMOSIS.—Dr. Louis Y. Genella, of New Orleans, describes in the *New York Medical Journal*, January 7, 1899, a new intestinal forceps, which for simplicity of construction and manipulation can hardly be excelled. The instrument is an ordinary Péan artery-forceps with the blades substituted by incomplete rings. These rings, one on each blade, have a hiatus of one-eighth inch, intended to permit their withdrawal from the lumen of the bowel after the suturing has been done. The writer's description is not quite clear in some points, and his technic as given is susceptible of some improvement. He recommends making a hole with a trocar one-third of an inch from the end of each segment of bowel. Through these openings the two blades or rings are introduced, one into each bowel-end. The bowel edges are now inverted and the forceps clamped. The circular suture being completed, the forceps is unclamped and the blades withdrawn one at a time through the little openings, which are then closed by suture. He describes a rather awkward way of accomplishing the inversion of the edges of the bowel between the blades. A much better plan is that of Laplace of running a thread around and tying it with a half-knot until the inversion is sufficient, this being made possible by the four primary sutures holding the bowel-ends together. There is no necessity for making the holes, as the rings can be easily introduced through the ends of the bowel as recommended by Laplace. These suggestions are offered with the view of still further improving the operative technic. If the rings were made a little more elliptical and the hiatus larger the withdrawal of the forceps would be made much easier. We have much pleasure in commending the ingenuity displayed in the construction of this instrument and in thus early bringing it before the readers of this department.

TWO CASES OF PYLORECTOMY.—Finney, of Baltimore, reports in the *Johns Hopkins Hospital Bulletin*, December, 1898, two interesting cases of cancer of the stomach, in which he did pylor-ectomy. In the first case the growth was removed, with nearly one-third of the stomach, and the stomach was sutured in the usual manner, the duodenum being grafted into the stomach after partially closing the cut end. There was no difficulty in doing this. The mattress suture of Halsted was used. The case made an uninterrupted recovery. He had gained thirty pounds in weight since the operation four months previously.

The second case showed more extension of the growth along the lesser curvature of the stomach than along the greater, so that an additional V-shaped piece was taken out here, thus facilitating the subsequent suture very much. This procedure is an old one, having been first suggested by Billroth. After sewing up the V, the opening in the stomach was found to match the lumen of the duodenum nicely, so that then there was only a simple circular suture to be done. The dilatable rubber bags of Halsted were used. This case was one of those unfortunate cases that happen now and then, in which the operation was a great success, but the patient died. The case did well surgically; there were no symptoms of peritonitis and no pain, but he rapidly developed a typical pneumonia in the right lung, which extended to the left, and on the fifth day he died. The autopsy showed a double pneumonia. There was not a single adhesion to the abdominal wound, and no signs of peritonitis. Dr. Cushing, in the discussion which followed, called attention to the absence of septic germs in many of these wounds of the upper intestinal tract, as shown by his and Dr. Livingston's experiments on animals.

Department of Obstetrics and Gynecology.

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

THE VAGINAL PLUG IN ACCIDENTAL HEMORRHAGE. — Dr. E. Hastings Tweedy concludes an article on this subject as follows:

1. The vaginal tampon, when properly applied, is the most

suitable treatment we possess for the worst forms of accidental hemorrhage.

2. It may be relied on as sufficient in the majority of cases, not amenable to other treatment.

3. It controls the circulation in the uterine arteries, acting in much the same way as does the tourniquet.

4. It dilates the cervix partly by exercising a peripheral force on that structure, and in part by exciting uterine contractions.

5. These latter are induced not alone as a consequence of cervical dilation, but are chiefly attributable to the power the tampon possesses in bringing about an accumulation of carbonic acid gas in the uterus.—*N. Y. Lancet*.

FIBROIDS OF THE UTERUS DEMAND INTERFERENCE, Dr. E. E. Montgomery says:

1. When they occasion hemorrhage.

2. If purulent or muco-purulent discharges endanger the health of the patient.

3. If pain is great.

4. If they press upon the veins and cause edema of the feet.

5. If there are symptoms of pressure upon the ureters, bladder or rectum.

Disturbances of respiration or circulation often call for surgical interference; also changes in the tumor, viz., necrosis or malignancy.

Medical treatment is quite unsatisfactory and in many instances is attended with danger.

Hot douches, massage, curettement, extra-uterine medication, castration and ligature of the uterine arteries are not always effectual or devoid of danger.

The most rational method of dealing with these growths is myomectomy, when practicable, or hysterectomy.—*Therapeutic Gazette*.

INSUFFICIENT MENSTRUATION.—Dunn (*American Journal of Obstetrics*) reviews the history of several cases of this condition and concludes the article as follows:

1. They appear to be due to a lack of proper functional activity of the glandular structure of the uterus and adnexa.

2. Anything that will stimulate the functional activity of

these glandular structures will increase the menstrual flow and give more or less marked relief.

3. Direct stimulation of the endometrium and muscular structures of the uterus, by stimulating the terminal nerve filaments and conveying an awakening impulse to the ganglia in the uterus and adnexa, is the surest means of relief.

4. This stimulation should be only such as is necessary to give relief to symptoms.

5. Unless there be something in the uterus requiring removal, a sharp curette should never be used.

6. The difficulty of effecting a cure increases in direct ratio with the amount of injury done to the endometrium.

7. Judging from one case, stimulation, such as described, will relieve symptoms at any time between periods without producing at the same time any flow of blood.

8. If conclusion 7 should prove true in a series of cases we should be justified in believing that the amount of the menstrual flow is in itself of no particular moment except in so far as it indicates a normal activity of the glandular structures of the reproductive organs.

9. If the symptoms enumerated and the suffering endured by subjects of insufficient menstruation are due to insufficient functional activity of glandular structures rather than to an insufficient flow of blood, is there not at least a strong probability that they are the result of a form of toxemia?

THOROUGH CURETTAGE IN ALL CASES OF ADVANCED CARCINOMA OF THE UTERUS is advocated by Dr. McMurtry, scraping away necrosed tissue, removing obstructed pus accumulations, washing out debris and establishing drainage. This treatment reduces septic intoxication, thereby prolonging life and making the patient comfortable by removing the cause of the offensive discharge. When radical removal of the diseased tissues is attempted the abdominal route is advised in most cases. Vaginal hysterectomy is limited to the few cases of early diagnosis in which operation can be done before the deep tissues are involved. Dr. Ernest Lewis advised curettage and the application of a saturated solution of chloride of zinc in cases too far advanced to attempt radical removal. The chloride of zinc is applied on small tampons which are packed into the diseased

spaces and removed twenty-four to thirty-six hours later. A slough of the entire diseased area occurs and a fresh surface is left. Howard Kelly has found that the great pain accompanying carcinoma uteri is in the majority of instances due to the accumulation of pus in the cavity of the uterus above the diseased tissues, and in these cases nothing gives such relief as thorough drainage.—*Transactions of the Southern Surgical and Gynecological Association.*

THE TREATMENT OF COMPLETE RUPTURE OF THE PERINEUM by "Dissecting out the Sphincter Muscle and its Direct Union by Buried Sutures," was the title of a paper read at the last meeting of the Southern Surgical and Gynecological Association by Dr. Howard A. Kelly.

The chief advantage of this procedure is that control over liquid motions and flatus is gained immediately instead of several months later as in other methods, where the woman "will have to learn to control the muscle in course of time." Faulty approximation of the ends of the sphincter, which lie buried in a pit, and are difficult to bring together accurately when a considerable quantity of the surrounding tissues are included in the suture causes this defect. Dr. Kelly removes this objection by dissecting and freeing the sphincter ends, drawing them out about one and a half centimeters from the tissues, cutting off the rugged and scarred ends, and bringing the ends directly in apposition by two to three buried catgut sutures. After uniting the sphincter ends with catgut sutures a suture of silk-worm gut is passed through the middle of the sphincter near the edges of the wound and carried on up through the septum, which splints the ends of the muscle by removing the tension from the catgut. In nine instances he has noticed a marked improvement over results obtained by other procedures, the patient being immediately conscious of perfect control of the functions. Locking up the bowels after the operation is not advised.

In order to prevent infection of the buried catgut sutures great care must be taken not to leave any dead space when the remainder of the denuded space above the muscle is closed.

Dr. Kelly does not advise any one who is not especially skilled in plastic work to attempt this operation.

Department of General Medicine.

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

LA GRIPPE, OR INFLUENZA.—A specific infection, a communicable disease, frequently prevailing as an epidemic in winter and spring.

Clinical Characteristics.—Outset is sudden and fierce.

(a) *Nervous System.*—Chills, severe fever, general lassitude and prostration, fixed and intense pains in the head, back and limbs. The rapid neurasthenia of the outset is prolonged.

(b) *Respiratory Apparatus.*—Cough dry, frequent, painful. Retrosternal pain; coryza, laryngitis, bronchitis or bronchopneumonia.

(c) *Digestive Apparatus.*—Loss of appetite, dyspepsia, diarrhea.

(d) *Circulatory Apparatus.*—Tachycardia, diminution of the first cardiac sound, arhythmia, collapsus.

I. Nervous Form, Ordinary Form.—If the tongue is very coated and if there is nausea, give 1 gramme 20 centigrammes of ipecac in three powders, one powder every five minutes, with warm water to facilitate action.

Wrap the feet and lower third of legs in absorbent cotton.

After the patient has vomited, give every two hours some bouillon or milk.

If headache is intense, give every two hours, in the interval of feeding hours, one tablespoonful of the following:

Antipyrin.....	2 grammes.
Tr. Aconite.....	15 drops.
Syrup of orange flowers.....	30 cubic cent.
Distilled water.....	90 cubic cent.

If the headache is not intense, commence giving every day four of the following cachets:

Quinin hydrobromate.....	}	aa. 25 centigr.
Fl. extract of cinchona		
For one cachet.		

When the attack is declining give in the morning a large glass of Rubinat water. Then start to feed patient more and

more, gradually, giving at each meal one tablespoonful of the following:

Fl. extract of cinchona.....	6 grammes.
Glycerin (neutral)	50 cubic cent.
Syrup of orange peel	250 cubic cent.
Sodium arseniate.....	10 centigrammes.

II. *Respiratory form*.—Begin treatment with ipecac, as in form I. After the patient has vomited give him four times a day in a cup of hot orange flower tea one tablespoonful of the following:

Sodium biphosphate.....	20 grammes.
Syrup of polygala	100 c. c.
Distilled water.....	200 c. c.

Then, when cough is frequent, spasmodic and painful, give four times a day in a cup of hot milk one tablespoonful of the following:

Cherry-laurel water	100 c. c.
Tinct. of aconite.....	100 drops.
Syrup of tolu.....	500 c. c.

Or, give from two to six tablespoonfuls a day of the following:

Bromoform.....	2 grammes 50.
Sweet almond oil.....	30 grammes.
Pulverized gum arabic.....	29 grammes.
Syrup of orange peel	60 grammes.
Distilled water.....	250 grammes.

When the cough is loose and expectorating commences, give every two hours one tablespoonful of the following:

Sulphurated antimony.....	20 centigr.
Looch album.....	90 c. c.
Syrup of poppies	30 c. c.

If there exists bronchopneumonia, give every two hours one tablespoonful of the following:

Infusion of ipecac. 2 grammes in 100 c. c. of water.	
Reduce to 90 c. c., strain and add syrup of polygala,	
100 c. c.	

If there exists respiratory asthenia, alternate the preceding preparation with the following:

Ergotin	2 grammes.
Simple julep	120 c. c.

And give as a drink coffee with rhum; locally, apply every day tincture iodine and dry cups.

Should it not suffice, examine the urine first and should it prove free from albumin, apply a blister and even several of them in succession.

III. *Gastro-intestinal form*.—First administer the vomitive, as in form I; then give a purgative, from 30 to 45 grammes of sodium sulphate.

Next, give at each meal, this being light, one cachet, containing as follows:

Benzonaphthol.....	20 centigr.
Bismuth benzoate.....	30 centigr.

Alimentation should consist of eggs, broiled meat, roasted meat, milk, no bouillon or beef tea.

Should diarrhea persist, order an absolute and exclusive diet of milk, giving one cup of milk every two hours, day and night, except when patient is resting; give no other food and no other drink.

With each cup of milk give one tablespoonful of the following:

Lactic acid.....	5 grammes.
Distilled water.....	300 c. c.

IV. *Circulatory form, cardiac asthenia and arterial hypotension*.—Give every two hours one tablespoonful of the following:

Caffein.....	} aa 1 gramme.
Sodium benzoate.....	
Sweetened water.....	120 c. c.

Should this be not retained, or should it prove insufficient, make every day from two to four hypodermic injections each of one cubic centimeter of the following:

Caffein.....	} aa 2 grammes 50.
Sodium benzoate.....	
Distilled water.....	O. S. ad 10 c. c.

To this should be added inhalations of oxygen (10 litres in 24 hours, taken by small quantity during five minutes each time).

Use also hypodermic injections of ether and of artificial serum.

V. *Convalescence*.—Should there be any persistent neuralgia give from two to three cachets of the following at meals:

Quinin hydrobromate.....	25 centigr.
Fl. extr. cinchona.....	50 centigr.

For uncomplicated convalescence order the use of some pleasant spring water to drink at meals with fine claret.

Order at each meal one tablespoonful of the following

Extr. of kola	10 grammes.
Syrup of orange peel.....	300 c. c.

When the cough has entirely disappeared order every morning a cold douche during 30 seconds, on the whole body, in interrupted strokes, and on the lower limbs, in a continuous stream, this to be followed by a brisk dry friction and a walk outdoors.

Order a change of climate to those who live in unfavorable districts, send them to a temperate clime, where life in open air is possible, for this is essential, open air.—*Leçons de Clinique*, DR. J. GRASSET, Professeur de Clinique Médicale à la Faculté de Montpellier.

Department of Therapeutics.

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

FIVE CASES OF MUSHROOM POISONING.—D. W. Prentiss contributes to the *Philadelphia Medical Journal* of September 24, 1898, an account of five cases of mushroom poisoning, three of which proved fatal. Two of these cases occurred in Washington, in November, 1897, and excited much comment in the daily papers.

The first case was that of Count De Vecchi, who bought a quantity of mushrooms in the market. As he was familiar with mushrooms, he thought he identified the specimens as the *orange amanita*, an edible species. They were eaten by himself and a friend, Dr. K——. The count ate about two dozen, and Dr. K. about one dozen. About one-half hour after the mushrooms were eaten the count was in a state of collapse, which was followed by unconsciousness. Before the latter developed there was

*REMARK.—Owing to its mild temperature and soothing humidity in winter, the atmosphere in New Orleans makes of the latter, without doubt, a place and station where la grippe can not do much damage.

difficulty in swallowing and complete blindness. The patient died on the evening of the second day.

Dr. K., who had partaken of a smaller number, about one hour later became unconscious; this coming on gradually without premonitory pain or distress.

The three remaining cases, of whom two died, occurred in a family at Shippensburg, Pa., and were under the care of Dr. E. S. Berry. The species that were eaten were *amanita muscaria*, or fly mushroom; the *amanita phalloides*, or skunk mushroom; and a few that resembled the *amanita verna*. The majority were pure white with a rank, pungent, disagreeable odor, with collar and sheath. The father ate about one dozen, the mother eight; a child of four years ate about four or five. They were eaten for dinner at noon and a few at supper. All three persons were taken with violent abdominal symptoms, purging and vomiting at 12 o'clock the same night. No pain was complained of, but there was headache and cramps in the calves of the legs. After twenty-four hours they became jaundiced. The child had convulsions four hours before death. After twelve hours the father improved so that he was able to attend the funeral of the other two, two days later. He had an irregular action of the heart and a temperature of about 100 deg. F.

It will be noted in the foregoing description that the symptoms presented in the first two cases were markedly different from those presented in the last three. Each case of the two groups of poisoning presented the same clinical picture. The article does not describe the variety of mushrooms eaten in the cases which occurred in Washington, but there is an excellent description of the fungus which caused the poisoning in Shippensburg. The symptoms in the latter cases are clearly due to a mixture of muscarin, which is the poisonous principle of the fly *amanita* and of phallin, a toxalbumin which is found in the "death cup," or *amanita phalloides*.—*Medicine*.

THE USE OF FORMALIN IN THE TREATMENT OF BLEPHARITIS.—Moulton (*Am. Med. Asso.*, 1898) extols the virtues of a 1 to 2 per cent. solution of formalin in all forms of blepharitis. The solution must be fresh and applied daily, as follows:

The lid is drawn away from the eyeball. The mop dipped in

the solution is rubbed gently along the margin among the lashes until all the scales and crusts are removed and until the surface of any little pustule is rubbed off. The site of disease is thus left clean and smooth. The mop may be renewed a time or two during each operation. A little bland oil may be applied afterward, or the formalin may be used in the oil. In addition to this treatment it is understood that any local or general disturbance is to receive appropriate attention.

FORMALIN IN BROMIDROSIS PEDUM.—In cases of offensively smelling feet, it is said to be a good plan to wash the soles and the interdigital spaces once or twice a day with a 2 per cent. solution of formalin, and to have the inside of the boots, especially the sole, washed out with the same solution, and carefully dried afterward. In a few days the offensive odor disappears.—*The Practitioner*.

ACETATE OF THALLIUM FOR NIGHT SWEATS.—Combemale (*La Presse Médicale*) has recommended the acetate of thallium, which appears in a white powder readily deliquescing and soluble in water and in alcohol, in the dose of two to four grains a day in pill form for night sweats. He claims to have obtained excellent results.—*The Therapeutic Gazette*.

THE PRECISE VALUE OF CREOSOTE IN PULMONARY THERAPEUTICS.—When Sommerbrodt some years ago wrote his early papers upon the value of creosote in pulmonary tuberculosis the profession immediately jumped to the conclusion that his clinical results were correct and that the drug was one which would cure at least a certain proportion of tuberculous cases. As with many other highly vaunted remedies which has been used in this affection it was not long before it was found that its value was limited, and while in some cases it relieved cough and aided expectoration, in others it failed to produce any marked amelioration and certainly did not materially modify the primary pulmonary lesion. At the same time the cases have been numerous in which creosote when taken by the patient suffering from pulmonary tuberculosis has proved of very decided advantage and has so modified many of the most pressing symptoms that the clinician who has employed it has felt inclined to give it

great praise, and has even noticed an improvement in the patient's general condition, this improvement being due to its useful influence in clearing the lung of secretion and in modifying cough.

Our attention has once more been directed to this matter by a brief editorial note in the *Journal of the American Medical Association* of October 20, 1898, which is entitled "Creosote not a Specific."

In this note the well-known and oft-repeated statement is made that our chief duty in the treatment of pulmonary tuberculosis is to maintain by every means in our power a condition of high vitality, perfect metabolism and consequent perfect nutrition, and the fact is also emphasized that creosote does not exercise an antibacillary influence, nor does it diminish the influence of the tubercle bacillus, although the writer of the editorial note recognizes, as we have already said, that it often exercises a favorable influence upon the symptoms of tubercular patients. Considerable experience in the use of creosote in tuberculosis has convinced us that it is most valuable in those cases in which there is an associated bronchitis of a chronic type characterized by profuse expectoration. In other words, the creosote acts as a stimulating expectorant by aiding in the expulsion of muco-pus from the bronchial areas, relieves the lung of secretion, and thereby aids the respiratory movements. On the other hand, in those cases of pulmonary lesion in which the bronchial symptoms are not marked, we have never been able to see that creosote exercised any beneficial influence. On the contrary, it has seemed in many cases to disorder the digestion and thereby destroy the most powerful factor that we can call to our aid in maintaining the patient's nutrition. It ought to be recognized, therefore, that creosote is a valuable remedy for the relief of the bronchial complications of tuberculosis, and exercises but little good so far as the tubercular focus itself is concerned.

It has also been the experience of those who see many cases of tuberculosis that creosote should be used with caution or not at all in those patients who have a tendency to hemoptysis, and in those who have marked febrile involvement.—*The Therapeutic Gazette.*

Miscellaneous.

RUPTURE OF THE TRACHEA.—A man, *æ*t. 24, met with an accident in which an iron bar violently struck the sternum while his neck was stretched. The immediate consequences were dyspnea, complete aphonia, coughing, spitting of blood, and, lastly, an extended emphysema in the upper parts of the chest. Death occurred eleven days afterward, quite suddenly. A post-mortem examination was made without delay. It showed that the windpipe had been ruptured between the ninth and tenth rings.—*Deutsche Medizinal Zeitung*, No. 97, 1898.

THREE CASES OF PNEUMONIA are related by Dr. Lewin, in all of which decided fever was extant, but with very irregular course, and showing a tendency to intermission and differences of temperature from three to five degs. (Centigrade). Duration of disease was one to two months. In one case Dr. L. observed a weak heart action and bloody expectoration. In another, frequent diarrhea occurred, and again in another repeated epistaxis. On the whole, however, the clinical tableau showed merely signs of broncho-pneumonia. It was due to the bacteriologic investigation only that a right diagnosis was possible. The author is of the opinion that the bacteriologic examination of the sputum is unreliable, because the streptococci which then are found in the sputum may as well come from the mouth-cavity as from that of the nose. He recommends, therefore, to obtain one drop of the effusion directly from the lungs by means of a syringe. The lesion of the lung in such case is quite minimal, and the danger for the patient nil.—*Bolnitschaya Gazeta Bôtkina*, 15-16, 1898.

CASE OF LARYNX-FIBROMA DURING PREGNANCY — EXTIRPATION—HEMORRHAGE—TRACHEOTOMY.—The case relates to a female, 32 years of age. During her seventh pregnancy she had suffered a long time of coughing, hoarseness and troubles of respiration, which symptoms, however, all disappeared after nine months, healing spontaneously. When the same symptoms appeared in her eighth pregnancy the patient was laryngoscopically examined, when a fibroma was discovered which was situated under the right vocal cord. This fibroma was removed in two

sittings. At the second sitting hemorrhage occurred, which soon took such an alarming character that, to save the life of the patient, tracheotomy had to be performed, after which the bleeding stopped immediately. Pregnancy was not in the least disturbed through the just mentioned operation, and took its ordinary course.—*Deutsche Medicinal Zeitung*, No. 97, 1898.

THE BACTERIUM COLI COMMUNE AS THE CAUSE OF CROUPOUS PNEUMONIA IN HERNIA INCARCERATA.—One of the most dangerous complications, which make their appearance after the operation of strangulated hernia is, doubtless, croupous pneumonia, especially in old people. We find in the *Tagebuch der Gesellschaft der Aerzte zu Kasan* an article of Dr. Sabolotnow in which is said that this complication has a long time been considered as an accidental phenomenon, or simply as a coincidence between a croupal pneumonia and the strangulation of a hernia. By direct experimentation, however, it was definitely found that in such cases croupal pneumonia was by no means an accidental phenomenon, but was caused by bacterium coli, which is always present in the digestive tract, and, in cases of strangulation of hernia, comes by infection of lung tissue with the blood. Dr. Sabolotnow relates the case of a lady, 73 years old, who was operated upon on account of strangulated crural hernia on the left side, what the Germans call "*eingeklemmter linksseitiger Schenkelbruch*." The following day patient died with pronounced symptoms of edema of the lungs without any symptoms of peritonitis. The result of a post-mortem examination evidenced croupal pneumonia in the right lung. As the *excitator inflammationis* the bacterium coli was found, and that that bacterium was the sole cause was shown by the fact that no other micro-organisms were found in the affected part of the lung.—*Medicinskoe Obosrenie Bd.*, 50, H. 6, 1898.

AIROL AN INDICATION IN NUMEROUS CASES.—Airol is a bismuth-oxy-iodide-gallate, in which bismuth and gallous-acid, as principal components, are strong astringents.

Dr. von Bruns (Tübingen) states that airol warrants a cure *per primam intentionem* in almost all traumatic cases, and it prevents, with certainty, suppuration where a puncture canal exists.

In laparotomy, herniotomy and so forth, *airol paste* is ordered

by Bruns as the sole dressing. The peculiar effect of aïrol can be observed still better when suppuration already has occurred.

Dr. Bloch has used aïrol extensively, and with very good results; for instance, in twelve cases of *ulcus molle, i. e.*, soft chancre with profuse secretion. He was astonished to observe its never failing desiccative qualities. Against profuse secretion, aïrol is indicated as a quickly acting remedy. It is cheaper than iodoform, and has not its bad smell. Besides it is of a lighter specific gravity.—*Deutsche Medizinal Zeitung.*

ON HYDROPS ARTICULORUM INTERMITTENS. — Dr. Weisz Pistyan found, after careful perusal, only fifty-one cases in the whole literature. A case of this rare affection was treated under him. The patient was a man 38 years of age, and hydrops articulorum intermittens occurred after gonorrhœa. Elaborate measurements were made four times daily, and the result expressed by curves. As an interesting fact it is to be noted that the circumference was largest after a night's rest. The etiology of the case is somewhat obscure. The chief factor was the infectious moment of gonorrhœa, but nervous influence might have been extant. Therapy is generally powerless. As a palliative remedy with passing success, sulphurous mud-baths and a dry diet were ordered.—*Ibid.*

THE HISTORY OF A CASE OF UNEQUIVOCAL REFLEX URTICARIA CAUSED BY EYE-STRAIN, was detailed by Dr. Charles A. Oliver. The patient was a healthy, active woman, 47 years of age, who up to her forty-first year had constantly suffered from a diffuse, unaccountable nettle-rash. Six years before she was seen by Dr. Oliver her physician found that a pair of complicated sphero-cylindrical bifocal lenses for constant use promptly, and without any suggestion or change in manner of life, prevented the urticaria attacks. A return of the eruption, with visual disturbance, induced her four years later to seek a new cylindrical correction. Antimetropia, heterophoria, astigmatism and presbiopia being corrected at this time, the enidotic symptoms passed off, and have remained in abeyance ever since. Subjective and objective experiments of both motor and sensory type were made, both positively and negatively and locally and generally, until it was proven that a true relationship existed

between the general vasomotor disturbance and the refractive and muscular anomalies.—*Section on Ophthalmology*, College of Physicians of Philadelphia. Meeting December 20, 1898.

THE BACTERIOLOGIC EXAMINATION OF FORTY-SIX CASES OF CONJUNCTIVITIS AND CORNEAL ULCERS were presented by Drs. G. E. de Schweinitz and C. A. Veasey. In general terms, in the mild types of conjunctivitis, staphylococci were usually found; in the acute varieties, which were usually classified as contagious or epidemic, the pneumococci and the Koch-Weeks bacillus; in the membranous varieties either streptococci or Löffler's bacillus; and in the subacute forms of conjunctivitis, in one case at least, the diplo-bacillus of Morax and Axenfeld. In some cases unidentified bacteria were discovered, and in others the examinations were negative.

In the corneal ulcers of the superficial variety, staphylococci and, in one instance, pneumococci were found; in the deep or sloughing ulcers without hypopyon, either streptococci or pneumococci; and in those with hypopyon, in one case a mixed infection (pneumococci and streptococci) and in the other a pure streptococcus infection.

Dr. de Schweinitz also described inoculation experiments on rabbits' eyes with pneumococcus cultures, in which he had failed to produce a typical serpent ulcer. Streptococcus injections and staphylococcus injections also failed to produce typical serpiginous ulcer.

The authors pointed out the value of bacteriologic examinations, and gave illustrative cases where these examinations had influenced diagnosis, prognosis, and particularly therapeutics. While they realized the importance of bacteriologic examination in all cases, they did not think our knowledge was sufficiently great as yet to make a bacteriologic classification of the various types of conjunctivitis and ulcerative forms of keratitis to the exclusion of the clinical classification.

In the treatment of the membranous form, streptococcus conjunctivitis, Dr. Veasey relied principally upon frequent copious instillations of chlorate of potassium, gr. x- $\bar{3}$ j, as suggested by Knapp. He was successful in removing the membrane with this remedy after unavailing use of mercury bichloride, boric acid,

formaldehyde, zinc, and other remedies, and considered its bacterial action better than that of zinc solutions for this variety of conjunctivitis.—*Ibid.*

DR. WILLIAM M. SWEET READ A PAPER ON THE DIPLO-BACILLUS OF CHRONIC CATARRHAL CONJUNCTIVITIS, and reported the examination of thirty-two cases of conjunctival and suppurative corneal disease, in seven of which the germ was found. Six of the patients had low-grade chronic conjunctival congestion, with moderate secretion, and two had corneal ulceration. In one case of phlyctenular conjunctivitis a few specimens of the germ were found. The life history of the organism agreed with the studies of its discoverers, Morax and Axenfeld, and with the investigations of Peters and Gifford, while the resistance of the disease to ordinary forms of treatment, and its prompt subsidence under solutions of zinc, were fully verified. In one case silver, tannin, boroglyceride and boric acid were used as treatment for a period of five weeks with no abatement of the symptoms. As to the germ having a distinct capsule Dr. Sweet was disposed to agree with the findings of Gifford, although Morax, Axenfeld and Peters state that no capsule exists.

Discussion.—Dr. de Schweinitz was inclined to believe in the existence of a bacillus capsule, although he admitted that it did not stain, and was difficult of demonstration. Dr. Oliver explained the exemption of some individuals and the selection of others on the basis of the difference in the character of the conjunctival sac and its secretions, as a soil adapted to the development in some and the death in others of the bacilli.—*Ibid.*

THE NON-MEDICAL TREATMENT OF EPILEPSY.—Within a few years past a new departure has been made in the treatment of epilepsy. The former treatment by medicine alone has been unsatisfactory, and remedy after remedy has been used and discarded. Surgical operations also have been performed, in some instances with good results, but in a great majority of instances with little benefit.

In epilepsy we do not deal with the epileptic paroxysm alone but with a complexus of symptoms, among which the epileptic convulsion may be regarded as the last of a series of morbid processes.

The majority of epileptics possess an extremely weak ner-

vous system, perhaps inherited, and the individual patient is always unduly susceptible to disturbing influences. It has been known for a long time that the causes of epilepsy varied. In many instances epilepsy has been thought to be due wholly to disturbances of digestion, but it is now pretty evident that we have to deal with a more serious trouble. It is not primary digestion alone, but often secondary digestion which is at fault. There is some defect in metabolism, as a result of which the system becomes poisoned. The neurotic organization to which I have referred being unduly responsive to the action of this poison is overwhelmed by it and we have an epileptic paroxysm. It was formerly thought that if some remedy could be found to control the paroxysm, epilepsy was cured, but now we know that remedies which merely control the paroxysm do very little to cure the disease. It is like tying the hands of a maniac to cure his excitement. The general effect of the bromides and of similar remedies has not been to prevent the generation of the poison in the system, but merely to restrain its manifestation in an epileptic attack. Such restraint may be effective for a time, but finally the poison becomes so overwhelming that a paroxysm can no longer be restrained, and a furious convulsion follows, which probably equals in force the sum of the minor paroxysms which had been prevented by the remedy. It has been found by experience that the condition of such a patient is worse than if he had more frequent but milder convulsions.

It has been found in institutions for the insane that the effect of large doses of bromide upon insane epileptics has been to deaden their sensibilities, to increase their growing dementia and to render them more furious and dangerous; and the majority of physicians who have to deal with this class of patients long ago concluded that it was unwise to attempt to cure these patients by remedies which were given to check convulsive seizures.

Recent observations have indicated the character of the poisonous substances which enter the circulation and produce the epileptic seizure. They are probably leucomaines, but their exact relations to the disease have not been fully worked out and much remains to be done to determine the means of preventing the formation of these poisons in the system. There has, however, grown out of these investigations a system of

providing for epileptics which promises much for the future. In this system it is not intended to substitute hygienic and moral influences for medical treatment, or to decry medical treatment, but rather to relinquish the idea of depending upon drugs alone in the treatment of epilepsy.

Within the past few years provision has been made in many States for the care of epileptics in large colonies. The epileptic is not a pleasant member of the home circle, whether he is sane or insane, and he seldom does well if treated at home in the family, being difficult to control and unable to co-operate in curative measures. In New York, Ohio and to some extent in other States institutions for their special treatment have been started. In the majority of instances this treatment consists in giving the epileptic the largest possible amount of open air life, and in controlling his diet so that the amount of nitrogenous food may be carefully regulated. It is equally essential that the growing epileptic shall have something to do. It has been found that patients fed upon drugs with nothing to do have frequent epileptic seizures, while if kept employed in the open air the seizures are less frequent. An attempt is now made to give them useful labor every day under medical control, with the theory that a physician should in every case prescribe the kind and amount of labor and the time of day it should be performed. Many epileptic patients are prone to seizures immediately after meals, especially if allowed to fall asleep. It is necessary, therefore, in all matters which relate to the labor of the patient that the medical man shall say when and how the patient shall exercise.

As the result of such treatment patients who have been subject to daily or weekly seizures often without any medicine go a month, sometimes a year, or longer without a convulsion.

From our present knowledge the best treatment for an epileptic is an open-air life, carefully selected food and a judicious amount of labor.—DR. HURD, in *Johns Hopkins Hospital Bulletin*, December, 1898.

DERMATITIS AND OTHER TOXIC EFFECTS PRODUCED BY BORIC ACID AND BORAX.—Boric acid was first prepared in a crystalline form by Homberg in 1702, and was introduced into medicine under the name of "Homberg's sedative salt," and sedative

anodyne, and antispasmodic properties were ascribed to it. Cullen refers to it in his "Materia Medica" and states that he had given it in large doses without observing any effects. In 1844 the medical faculty of Munich offered a prize for the best essay on the pharmacologic properties of boric acid and borax, which was gained in 1848 by Dr. Binswanger and published in the *Repertorium für die Pharmacie*. Dr. Binswanger described many experiments with boric acid. He considered it to be comparatively inert. Doses of from 1 dr. to 3 dr. caused some gastro-intestinal irritation and smaller doses were readily absorbed and excreted by the urine in from fifteen minutes to thirty hours. Borax resembled the carbonate of soda; in large doses it caused gastro-intestinal irritation; smaller doses were absorbed and could be found in the bile, in the saliva and in the portal blood. On Dr. Binswanger himself it produced an impetiginous eruption and was excreted by the kidneys. Borate of potash and borate of ammonia resembled borax in their action. After 1848 the use of boric acid in medicine seems to have almost disappeared; it was not included in the British Pharmacopeia, except as a test for turmeric in rhubarb, until 1885, when its value as a non-irritating antiseptic had led to its extensive use for lotions and ointments and for internal administration in diseased conditions of the bladder.

In addition to its medicinal use, boric acid or borax is largely employed as a food preservative, and it has been added to milk, butter, and other foods, more especially in hot weather, in order to delay or prevent decomposition. The quantity added to milk may reach 0.3 per cent., as in a case mentioned in *The Lancet* of July 17, 1897. This would amount to about 26 gr. per pint of milk and would constitute a very large dose for an infant or invalid on milk diet. Whether the temporary addition of small quantities of boric acid or borax to food is harmful or not is a matter which requires further investigation, but there is ample evidence that in certain persons either habitual use in medicinal doses or rapid absorption of a large quantity of the drug may sometimes cause serious and even fatal symptoms.

A number of cases have now been recorded showing the occasional toxic effects of boric acid externally applied or injected into the cavities of the body. The following instances may be referred to as illustrating the different ways in which intoxica-

tion may be produced. Moledenkow reports two cases, in one of which a pleural cavity and in the other a lumbar abscess cavity were washed out for an hour with a large quantity of a solution (5 per cent.) of boric acid. The next evening erythema appeared on the face and spread to the neck, trunk and thighs. Both patients died—one on the fourth day and the other on the fifth day. Bruzelus reports a case in which a widespread erythema appeared after a few days' use of two pints of a solution (4 per cent.) of boric acid which had been injected into the rectum in a case of chronic diarrhea in which the patient recovered. Johnson reports a similar case in which the injection of 3-6 grammes of boric acid was followed by headache, fever, injection of the conjunctivæ, and an erythematous, papular, and bullous eruption on the skin. The drug was easily detected in the urine. Högner reports three cases of intoxication following the use of boric acid solution for washing out the stomach. There was general depression with an erysipelatus eruption on the face, purpuric spots on the body, vomiting, diarrhea, and blood in the urine, and death resulted in one of the cases. Welch records cases following the use of vaginal tampons of boric acid in which were present formication and burning of the skin (chiefly of the face, hands and feet), severe depression, and afterward desquamation. In these cases the patients recovered. Lemoine met with a case of intoxication after dressing a bed-sore with boric acid. Dr. Arthur Hall reports a case of extensive burns treated by boric acid ointment in which on the fifth day an erythematous eruption appeared and affected the limbs, the trunk, and the face. The patient died on the ninth day and a necropsy revealed no organic cause for death.

Cases of intoxication following the internal administration of boric acid are fewer in number, but Corlett saw six cases when treating diphtheria with 1 drachm doses of the drug. Poisoning by borax is most frequently due to its internal use for long periods in the treatment of epilepsy. Three cases of psoriasis following this use of borax are reported by Gowers, and the observation is confirmed by Liveing. Still confirms the observation of Binswanger already referred to regarding the production of an impetiginous eruption on the skin. Ch. Féré and Lamy report two cases of an eczematous eruption caused by the internal administration of borax, with a photograph of one case. Dr.

Féré gives an exceedingly full account of his observations upon epileptic patients treated by borax. He found that in some cases intestinal irritation, nausea and vomiting were produced. The skin and mucous membranes were dried, the lips were fissured, the hairs became dry, and fell out, and the nails were often striated. On ceasing the drug the hair again grew and became thick. Psoriasis might appear, but a special form of eruption was more common, resembling in some points the seborrhœic form of eczema. Papules and little red-bordered circles first appeared; they became scaly, enlarged, and ran together to form extensive patches, often symmetrical. The scalp, the arms and the hands, the flanks, and the lower parts of the abdomen were most frequently affected, but the eruption might become general. In other cases the eruption was more scarlatiniform and the desquamation finer; petechiæ might be present, or in other cases furunculi. Edema of the extremities was frequently found, sometimes of the face as well, and albumin might be present in the urine. When extensive tracts of the skin were affected there was a cachectic state and loss of flesh. The onset of uremia in renal cases was hastened by the ingestion of borax. The drug could be readily found in the urine and was detected in from twenty-five to thirty minutes after a dose of 4 grammes of borax; in one patient who had taken 10 grammes per day for some time it was still present in the urine forty-one days after the last dose and in another case it was found fifty-three days after cessation of the drug. Both these cases had albumin in the urine.

My attention was first directed to the toxic effects of boric acid by the case of a man, aged 38 years, of somewhat alcoholic habits, who had never suffered from eczema or psoriasis. At 12 years of age he had a severe attack of scarlet fever, at the age of 16 years he had acute rheumatism and at 18 years of age gonorrhœa and syphilis, for which he was properly treated, and after a mild attack of secondaries he had no further syphilitic manifestations. He contracted gonorrhœa several times, and about twelve years previously to my seeing him, symptoms of stricture of the urethra appeared, and were treated so that for some years he suffered little inconvenience. In 1896, however, the stricture became troublesome and micturition was difficult, painful, and frequent, and the urine was

offensive and alkaline and contained pus. About the middle of March, 1896, he commenced taking boric acid (10 grains three times a day), and the condition of the urine improved. Early in May he noticed that the hair on his head was falling out and that the scalp was red and scaly. The hands and forearms became red, slightly swollen, and presented scaly patches on the flexor surfaces. In this condition I first saw him. I considered the case one of seborrheic dermatitis presenting some unusual features. As the urine was then clear and contained no pus, and only a small quantity of albumin, the boric acid was discontinued, though at that time there was no suspicion that the drug had any relation to the skin disease. Ordinary local treatment was adopted, and he very soon improved and was well in July, but in August the bladder symptoms were again troublesome, and he recommenced taking boric acid as before. At the beginning of September the skin eruption reappeared in a more severe form, and by the end of the month it involved the scalp, the trunk, and all the limbs. The affected skin was of a bright red color, and covered with profuse scales of a slightly greasy character. The patches of disease were irregular in shape, roughly symmetrical in distribution, and very extensive in area, leaving smaller patches of healthy skin on the trunk and the proximal parts of the limbs. The hands and forearms and the feet and legs below the knees were uniformly red, scaly, swollen, and they pitted on pressure. Desquamation on the palms and soles occurred in large flakes. The scalp was red and scaly, the hair had almost entirely disappeared from the head and was very thin on the face and pubes. The face presented only a few scaly papules. Digestion was disturbed, the appetite was poor, and there was marked debility and anemia, with loss of flesh. The coincidence of the outbreak with the resumption of the boric acid led me to suspect the drug as being the cause of the eruption, especially as the symptoms agreed closely with those described by Féré in patients taking borax. The administration of boric acid was stopped immediately, and a mild sedative ointment was prescribed for the skin; improvement was rapid, and by Christmas he was practically well, and had a good crop of healthy hair growing on the scalp. He remained well until May, 1897, when the bladder symptoms were again troublesome,

and led him to resort to the boric acid, which undoubtedly gave him relief. In June, the eruption on the skin again appeared, but to a much less extent, as he stopped the drug on the first outbreak of dermatitis. In July, he was fairly well, but in August he gave way to alcoholic excess, developed uremic symptoms, and died comatose. Whether he took any boric acid in July or August is not known, but the observations of Féré as to the influence of borax in hastening the onset of uremia in patients with renal disease are particularly interesting in this connection. In this case there were three distinct attacks of dermatitis, each one occurring a few weeks after commencing to take boric acid. The chief features of each attack were a diffuse widespread scaly eruption, edema of the extremities, loss of hair, anemia, and loss of flesh, and recovery always occurred under simple treatment when the drug was discontinued. The diagnosis rested between the toxic effects of boric acid, seborrheic dermatitis, pityriasis rubra, psoriasis, and syphilis, and a careful consideration was given to each of these diseases before the diagnosis of boric acid intoxication was made.

By the kindness of Dr. J. S. Bury, I was recently enabled to examine a man, aged fifty years, who had suffered from epilepsy for over twenty years. In June, 1898, he commenced to take a mixture containing 10 grains of boric acid and 15 grains of borax three times a day. Early in August the hands began to swell and they became red and painful and desquamated, and the feet, the head and the body were successively affected in a similar manner. On examination there was edema of the forearms and hands, also of the legs and feet, and the skin was red and scaling freely. The thighs and the lower part of the trunk presented red scaly patches, at the periphery of which minute discrete red papules could be seen. The scalp was red and scaly and bald on the crown, and the hair which remained was very thin. There were a few scaly patches and pustules on the face. Several boils were found on the thighs, the genitals and the shoulders. There was no history of any form of skin disease before taking the boric acid and borax.

During the past year I have administered boric acid to nearly forty patients who were likely to derive benefit from the drug,

and I have carefully watched the cases. In no case has any bad effect followed, though one patient has taken the drug continuously for four months. In one case, that of a man seventy years of age, who took eighty grains of boric acid per day in divided doses for four weeks, there was a distinct flushing and redness of the skin with the appearance of slight albuminuria. The urine was normal before taking the boracic and the albumin disappeared about two weeks after it was discontinued. I have taken boric acid myself in 15-grain doses without any inconvenience. On one occasion I took 120 grains within four hours. The result was nausea, but no vomiting, and colicky pains in the abdomen, followed by diarrhea seven hours after the first dose, which continued during the night and the following morning. On the next day I suffered from slight headache, a feeling of depression, a want of appetite and a marked flushing of the skin. The urine was increased and 60 ounces were passed in the twenty-four hours following the first dose. It contained free boric acid, which was present in that which was first passed four hours after taking the drug, and could still be found twenty-six hours after, but could not be detected forty-four hours after the administration. A portion of the urine was evaporated to dryness and incinerated, the ash being repeatedly extracted by 90 per cent. alcohol until there was no green tinge in the flame when the alcohol was ignited. The residue was again ignited, acidified by sulphuric acid, and mixed with alcohol, and on igniting the alcohol a green flame was at once produced. From these experiments I conclude that while a great part of the boric acid is excreted unchanged a certain portion is converted into borates (probably sodium) and excreted in that form. I was unable to make a quantitative determination owing to the fact that as boric acid volatilizes in the presence of steam a large part was lost in the process of evaporating the urine.

Experiments upon animals have been performed by J. Neumann, who found that dogs weighing 15 kilos. could tolerate from 5 to 6 grammes of boric acid without other injury than fall of temperature, but larger doses caused in addition vomiting and diarrhea. Quantities up to four grammes were injected into the pleural and peritoneal cavities in a 3 per cent. solution without causing inflammation; a 5 per cent. solution, however, excited peritonitis. Large doses (10 grammes or more) caused

death through nerve and muscle paralysis. Rabbits, pigs, horses and fowls gave similar results.

From a review of the recorded cases of intoxication from the use of boric acid and borax it seems clear that two forms must be distinguished—one in which a large quantity of the drug is rapidly absorbed from the alimentary canal, from a serous or other cavity, or from an extensive raw surface; in these cases vomiting and diarrhea, general depression, and partial paralysis of the nervous and muscular systems occur and may cause death. A rash is noted in many of the cases, especially where the patient recovered or lived some days after the absorption of the drug. The other class of cases results from the administration of boric acid or borax in comparatively small doses for long periods, and the symptoms appear at a variable time after the commencement of the drug. In some of these it is mentioned that the kidneys were diseased, in other cases albumin appeared in the urine, and in several cases ending fatally uremic symptoms are described. Whether the condition of the kidneys or an individual idiosyncrasy in regard to the drug is the determining factor in causing toxic symptoms requires further investigation, but it is an important fact that the great majority of persons taking boric acid or borax do so without any injurious consequences. The very rapid elimination of boric acid by healthy kidneys may perhaps explain this immunity.

It is possible that cases of intoxication occur more frequently than is at present recognized. Boric acid may be taken in food without the knowledge of the patient or the medical attendant, and a case of toxic skin eruption resembling eczema, psoriasis, or exfoliative dermatitis may easily be put down as an unusual form of these diseases. About four years ago I saw a patient—a female nearly sixty years of age—with extensive desquamative dermatitis affecting the scalp, the limbs and the lower part of the body with edema of the legs and the arms. She died in three weeks and the diagnosis of seborrheic eczema, though appearing most likely from the character of the eruption, was unsatisfactory in view of the edema and the fatal termination. Looking back over the notes of the case there is room for suspicion that it may have been one of unrecognized boric acid poisoning.

Neumann states that from 1 part of boric acid in 1000 to 1 in

500 is sufficient to preserve milk. These amounts are not infrequently exceeded. It may be noted that even 1 in 500 corresponds to 17.5 grains per pint and constitutes a very large dose for an infant on milk diet, and is likely in some cases to produce disturbance of the alimentary canal. In ordering milk diet for cases of kidney disease it ought also to be ascertained that the milk supplied is free from excess of boric acid or borax. The use of boric acid or the borates in surgery and their internal administration, though usually free from danger, ought to be carefully guarded in patients whose kidneys are diseased, and immediately discontinued should dermatitis or other toxic symptoms appear. In suspected cases the examination of the urine for boric acid and borax may afford valuable evidence of the absorption of the drug.—D. WILD, *The Lancet*, January 7, 1899.

CATHETERS AND CYSTITIS.—Dr. R. N. Mayfield, of New York, writes on Catheters and Cystitis in the *New York Medical Journal*. He recommends a catheter that is reliable and efficient in operation in all conditions and diseases of the bladder. The danger of clogging is obviated and its interior may be readily made antiseptic, and bits of mucus that usually clog an ordinary catheter may be readily drawn off.

This catheter is of very simple construction, being tubular and open at the end for an inlet. For the closure of this open end and for the easy insertion of the catheter, a bulbous or rounded head is used, preferably solid, attached to one end of a wire, passing through the tube and projecting at its outlet end. This construction forms a catheter having an area of opening so large as to greatly obviate the danger of clogging, for if mucus should lodge against the open end the working of the head back and forth would cut away the obstructing bits of mucus and permit them to pass through the tube.

With this instrument there should be no hesitancy in using nitrate of silver, iodine, corrosive sublimate, carbolic acid or hydrogen solutions, as any of these can be readily drawn off or neutralized, thus preventing poisoning from absorption or preventing rupture from gases.

Regarding the treatment of cystitis in a typical case, withropy, viscid and tenacious mucus, the membrane thickened and possibly ulcerated, the treatment is as follows:

1. Inject a quarter of a grain of cocain, dissolved in a drachm of water, into the membranous portion of the urethra.

2. Begin with dilute hydrogen solutions—preferably hydrozone—one part to twenty lukewarm water, using this solution freely, especially when employing the large size catheter. This can be repeated until the return flow is clear and not “foaming,” which indicates that the bladder is aseptic.

3. Partly fill the bladder with the following solution: Tincture of iodine compound, two drachms; chlorate of potassium, half a drachm; chloride of sodium, two drachms; warm water, eight ounces. Let it remain a minute or so and then remove. This treatment should be used once or twice a day.

Where extensive ulceration is suspected, use once a week from two to twenty grains of nitrate of silver to the ounce, and neutralize with chloride of sodium solutions.

This treatment carried out carefully will be satisfactory, as there is no remedy that will destroy bacteria, fetid mucus, or sacculated calcareous deposits like hydrogen.

THE TREATMENT OF LITHIASIS by currents of high frequency, was the subject treated of by Dr. Moutier at the meeting of the French Society of Electrotherapy on December 16, 1898. He reported a series of observations of patients suffering from biliary and from renal lithiasis treated successfully by him with currents of high frequency. These results conform with theoretical teaching, inasmuch as Professor Bouchard has demonstrated that lithiasis was one of the affections due to retarded nutrition, while Professor d'Arsonval has shown us that currents of high frequency were one of the most energetic means of accelerating nutrition.

TO PREVENT VOMITING AFTER EATING IN TUBERCULAR PATIENTS, induced by coughing spells, Mathieu recommends the following:

℞ Menthol	gr. iv.
Syr. simplicis	℥i.
Mucil. acaciæ	℥iii.

M. Sig. Two to four teaspoonfuls, at intervals, after meals.

—*Medical News.*

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 Refraction of the Eye. By GUSTAVUS HARTRIDGE, F. R. C. S. London: J. & A. Churchill. New York: P. Blakiston's Son & Co., 1898.

In the ninth edition of his standard work on the refraction of the eye, Dr. Hartridge has made, throughout the text, several useful additions consistent with our increasing knowledge, thereby bringing it well up to date. While it still deserves its wide popularity among students, it is to be regretted that the author has not seen fit to extend its value by including a chapter on the balance of the extra-ocular muscles, a subject so intimately associated with refraction and so extremely important that we can not ignore any longer the one when considering the other.

ROBIN.

Quiz Compend of Obstetrics. By DRs. LANDIS and WELLS. Sixth Edition, 1898. Illustrated. P. Blakiston's Son & Co., Philadelphia.

This little compend is so well known that comment is hardly necessary. A number of improvements, however, are noticed; such as a more complete study of the various positions and presentations by external methods, the mechanism of labor, the differential diagnosis between pregnancy and other forms of abdominal tumors, etc. The book is well illustrated, and will certainly prove, as heretofore, a help to the medical student.

MICHINARD.

Atlas and Abstract of the Diseases of the Larynx. By DR. L. GRÜNWARD, of Munich. Edited by Chas. P. Grayson, M. D. W. B. Saunders, Philadelphia.

The valuable feature of this work is found in its series of colored plates illustrating the pathologic conditions of the larynx, the clinical symptoms of which are given in a well observed concise history of each individual case. Indeed, to the trained eye of the laryngologist these pictures are as useful for a diagnosis as is to the general practitioner a well kept temperature chart of certain fevers.

The author, not content, however, with this artistic and realistic achievement, furnishes us with a number of microscopical plates showing in finer detail the morbid lesions described in the text. For fear of being

incomplete, Grünwald has gone further still, and gives in a few pages a very excellent didactic survey of the field embraced in the study of laryngology. The conception and execution of this small work is such that it could serve as a model for some of our American authors who do not always give sufficient attention to the study of pathologic conditions under the microscope, and who could enhance the value of their work by more profuse and exact illustrations of clinical types. This translation is most opportune, and will prove of interest to those who have been unable to acquaint themselves with the merits of the original German edition.

DE ROALDES & KING.

The Care of the Baby. By J. P. CROZER GRIFFITH, M. D. W. B. Saunders, Publisher, Philadelphia, 1898.

This is a work of four hundred pages, intended to furnish a reliable guide for mothers in caring for children, both in health and sickness, and can also be recommended to medical students and nurses. The author, while being scientifically accurate, has by the convenient arrangement of the text and the use of plain statements made the work one which will be read with interest and easily understood.

A serious objection to the book is to be found in the chapter on "The Sick Baby." Here many remedies and formulas have been suggested in the course of the remarks on the diseases of children that might influence mothers and nurses to assume the responsibility of treating diseases, when the attendance of a physician was positively indicated. Several very creditable plates and many illustrations are interspersed to make the text more plain, and the printing, paper and binding are of good quality.

MICHINARD.

Materia Medica, Pharmacy, Pharmacology and Therapeutics. By W. HALE WHITE, M. D., F. R. C. P. Edited by REYNOLD W. WILCOX, M. A., M. D., LL. D. Fourth American Edition. Philadelphia, P. Blakiston's Son & Co.

Dr. White has the rare faculty of being terse and lucid. His work shows careful editing, as the definitions and descriptions given are accurate and the arrangement excellent, the subject matter being presented in an attractive style, and is pleasant to read. We consider Dr. White most fortunate in having so conscientious a co-laborer as Dr. Wilcox to edit the American edition of his work.

The work is specially commended to students of medicine and pharmacy.

STORCK.

Manual of Otology. By GORHAM BACON, A. B., M. D. Lea Brothers & Co., New York and Philadelphia.

In compiling this work on otology, Dr. Bacon has supplied a much felt want in the literature of the day in this special branch. In it the author

has given to the student a compact treatise of the subject in which he can find not only a resumé of the standard works, but also a store of practical information deducted from the writer's own long and profitable experience. This fact makes it of special value to the laryngologist, as well as to the beginner and to the general practitioner. The methods of operation and treatment recommended are quite in line with modern ideas, and we particularly approve of his favorable comments on the Asch operation for correction of deviated septum. In the removal of adenoid growths, however, we think the preference should be given to the modern Gottstein curette and to the use of bromide of ethyl, which for that operation is an ideal anesthetic.

The volume is well put up and reflects credit on the publishers.

DE ROALDES & KING.

Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. Third Edition, Revised and Enlarged. By HOBART AMORY HARE, M. D., B. Sc. Lea Brothers & Co., Philadelphia.

The arrangement of this work is different from that usually followed in works on diagnosis. The symptoms used in diagnosis are discussed first, and their application to determine the character of the disease follows. This arrangement will be found convenient, often facilitating the practitioner in his search after information. The present edition is a decided improvement over the previous one, the text having been revised, and some good illustrations taken from life by photography introduced. This work is intended as a companion volume to the author's Text-book of Practical Therapeutics. That a third edition has been called for in less than three years seems to indicate that its arrangement meets with the approval of a large number of practitioners. The work is thoroughly practical, readable, and devoid of superfluities.

STORCK.

The Sexual Instinct. By JAS. FOSTER SCOTT, B. A., M. D. E. B. Treat & Co., New York, 1899.

Intended mainly for the layman, this work is well calculated to impart to him a sufficiently thorough knowledge of matters pertaining to the sexual sphere. The average individual is woefully ignorant on these subjects and many diseases, much suffering, mental and physical, probably even crimes, would be avoided or prevented if he was told more of the truth about such things.

Dr. Scott portrays in vivid colors the wrong and the danger of sexual impurity and argues in favor of sexual purity in the male as well as in the female. He discusses the influences which incite to sexual immorality and lead women into a life of prostitution, not sparing the men whom he rightfully denounces as being most frequently entirely responsible for the woman's downfall. On the other hand, he draws a pleasing picture of the pure and continent man and of his union in marriage to a healthy and

moral woman, claiming that only the chaste feel the pure glow of *sexual* passion, which he differentiates from the *sensual*.

Physicians can profit as well by reading this book and learn sound arguments in favor of chastity to be used with patients who can not read it: and intelligent fathers particularly should be advised to study it, not only for their own sake but for that of their progeny. C. C.

PUBLICATIONS RECEIVED.

Report of the State Board of Health of Pennsylvania, Vols. I and II, 1897.

Transactions of the American Otological Society, 1898.

Saunders' Pocket Medical Formulary, by Wm. M. Powell, M. D.—W. B. Saunders, Philadelphia, 1899.

The Medical News Pocket Formulary, by E. Q. Thornton, M. D.—Lea Bros. & Co., Philadelphia and New York, 1899.

Muscular Anomalies of the Eye, by H. F. Hansell, M. D., and W. Reber, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

Manual of Clinical Chemistry, by E. H. Bartley, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

Ocular Therapeutics, by F. W. Max Ohlemann, M. D.; translated by Chas. A. Oliver, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

Text-Book of Mechano-Therapy, by A. V. Grafstorm, M. D.—W. B. Saunders, Philadelphia, 1899.

Organotherapy or Opothorapy, by Dr. C. Hillemand.—G. Steinhil, Paris, 1899.

Text-Book of Anatomy, Physiology and Hygiene, by E. Franklin Smith, M. D.—Wm. R. Jenkins, New York, 1898.

Christian Science, by Chas. A. L. Reed, M. D.—McClelland & Co., Cincinnati, 1898.

Thirtieth Annual Registration Report of Michigan for the Year 1896, edited by C. L. Wilbur, M. D., 1898.

Twentieth Century Practice, Vol. XVII, edited by Thos. L. Stedman, M. D.—Wm. Wood & Co., New York, 1898.

The Practice of Obstetrics, by American Authors; edited by Chas. Jewett, M. D.—Lea Bros. & Co., New York and Philadelphia, 1899.

REPRINTS.

Studies on the Healing of Wounds, with Special Reference to the Iodine Preparations, by Prof. N. Zuntz and Dr. Ernest R. W. Frank.

Mechanical and Surgical Treatment of Fractures of the Neck of the Femur, by Arthur J. Gillette, M. D.

Coloring Matters and Ferments, by J. F. Peavy, M. D.

Some Remarks About the Study of Medicine in Germany—Diseases of the Ear as a Specialty, by Emil Amberg, M. D.

Experimental Researches About Mixed Infection in Chronic Pulmonary Tuberculosis, by C. Fisch, Ph. D., M. D.

The Caustic Action of Arsenic in Treating Carcinomatous Growths Accessible from the Surface of the Body, by C. W. Simmons, M. D.

The Early Diagnosis of Cancer of the Stomach—Diarrhea and Bacteria—Caries of the Teeth and Diseases of the Stomach, by Dr. Charles D. Aaron.

Die Prophylaxe der Sepsis bei Laparatomien, by Dr. B. Crédé.

Partial or Complete Loss of Vision from Causes Other Than Injuries.—Do Gross Pathologic Changes Occur in the Eye After Injuries to the Spinal Cord? by Dunbar Roy, M. D.

Some Sources of Failure in Treating Lachrymal Obstructions, by Leartus Connor, M. D.

The Santiago Campaign from a Medical Standpoint.—The Criminal Responsibility of the Insane.—Criminal Abortion and the New Criminal Evidence Act.—Christian Science and the Law in England.—The Right and Wrong Test in Cases of Homicides by the Insane.—Progress of Medico-Legal Surgery.—The English Home Office and Public Sentiment in America and Great Britain.—The Case of Dr. John A. Campbell.—Suicide, by Clark Bell, LL. D.

CIDER A GOOD DRINK.—The typhoid fever bacilli in water with which cider is made or in that added to cider, are destroyed by the malic acid contained in the cider. Lechartier recommends drinking cider in time of epidemic and advises its use in cities and by travelers.

Translation from *Revue Scientifique*, in *Literary Digest*.

MORTUARY REPORT OF NEW ORLEANS.

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

FOR DECEMBER, 1898.

CAUSE.	White	Colored...	Total
Fever, Malarial (unclassified).....	1	3	4
“ “ Intermittent			
“ “ Remittent	1		1
“ “ Congestive.....	4		4
“ “ Typho	1	2	3
“ Yellow			
“ Typhoid or Enteric.....	5	3	8
“ Puerperal		1	1
Influenza.....	3	1	4
Measles			
Diphtheria			
Whooping Cough		1	1
Apoplexy	17	7	24
Congestion of Brain.....	2	3	5
Meningitis	5	6	11
Pneumonia.....	30	29	59
Bronchitis	18	6	24
Cancer.....	12	2	14
Consumption.....	41	28	69
Bright's Disease (Nephritis)	21	10	31
Uremia			
Diarrhea (Enteritis).....	20	6	26
Gastro-Enteritis	2	1	3
Dysentery.....	6	1	7
Hepatitis.....	2		2
Hepatic Cirrhosis		2	2
Peritonitis.....	3		3
Debility, General		1	1
“ Senile	23	17	40
“ Infantile	6	3	9
Heart, Diseases of	47	25	72
Tetanus, Idiopathic			
“ Traumatic	2	4	6
Trismus Nascentium.....	3	5	8
Injuries	16	22	38
Suicide	1	1	2
All Other Causes	85	39	124
TOTAL	377	229	606

Still-born Children—White, 29; colored, 26; total, 55.

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

Death Rate per 1000 per annum for month—White, 23.71; colored, 34.35; total, 26.47.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.21
Mean temperature.....	51.00
Total precipitation.....	2.03 inches
Prevailing direction of wind, north.	

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

VOL. LI.

MARCH, 1899.

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 HODGEN SPLINT FOR FRACTURE OF THE THIGH.*

BY DR. GEO. S. BROWN, BIRMINGHAM, ALA.

In August, 1897, I published a paper on this subject (Hodgen's Splint for Fracture of the Thigh) in the *New York Medical Journal*, and I am glad to have this opportunity, which your kind invitation affords me, to review the subject and to further testify, not only to its efficiency in the treatment of fractures of the thigh bone, but to its very wide field of usefulness in the treatment of other injuries and diseases of the thigh and leg. Then, too, there are some minor changes which I think add, to some extent, to the efficiency of the apparatus which I would like to offer for your consideration.

The Hodgen splint, as I use it at present, is a very efficient appliance, so much so that in taking a case of fracture of the femur into the hospital for treatment I feel more confident of a good result and that with less labor to myself, or discomfort to the patient, than in the treatment of almost any other fracture.

It, as you know, is a modification of Smith's Anterior Splint, and it has been written up two or three times, I think, since Dr. Hodgen used it. The text-books, however, with the exception of Park's Surgery, which contains the very excellent article of

* Read before the Orleans Parish Medical Society, January 23, 1899.

Dr. H. H. Mudd, of St. Louis, speak of it in the most perfunctory manner. When one sees this apparatus in operation it is difficult to understand why it should be so utterly neglected for the more troublesome, uncomfortable and less effective Buck's apparatus, Physick's Long Splint and plaster of Paris dressings. The only reason for this neglect that I can see is that a written description of the appliance conveys a very poor idea of its principle. I am sure, however, that any one with an adequate conception of the principles involved in the treatment of this fracture would, upon seeing this apparatus applied, at once admit that it meets them better than any other so far used. The accompanying photographs will perhaps go far to explain the method of application. The iron frame, made of 3-16 inch iron, or No. 4 wire, runs along the inner and outer sides of the leg, it is continued across the sole of the foot, and its upper ends are joined by arching over the thigh at the perineum; this arch being detachable from one side. The frame is bent at a slight angle at the knee, and along the thigh and leg portions are rings to which are attached the supporting straps. The adhesive strips and foot block ordinarily used I have abandoned for strips of canvas $2\frac{1}{2}$ inches wide and long enough to reach from the middle of the thigh to 6 inches beyond the sole of the foot, which are incorporated in a well padded plaster dressing or boot, reaching from the base of the toes to the knee.

Instead of the underlapping muslin strips I use one piece of canvas, which is first pinned closely and evenly with safety pins to the inner bar of the splint. Then the outer edge of the muslin is pinned temporarily to the outer bar of the splint. Now, the straps being out of the way and the arch above detached, the canvas can be slipped in under the limb with the least possible disturbance of the injured part. The straps and arch are next put in place and the whole gently raised until it is clear of the bed. The distal ends of the canvas strips are slipped through the rings at the distal corners of the frame and pinned together opposite the sole of the foot. The safety pins along the outer bar are then readjusted until the hammock fits the leg evenly. We should now move the bed until the supporting cord is exactly perpendicular, and then note, by means of the scales to which the straps are attached, the exact weight of the limb and apparatus. Then by pushing the bed gently in the

direction of its head you will see that this spring scales must indicate accurately the number of pounds traction which is being made; the scales also gives a very comfortable elasticity to the hammock. It is best to allow the plaster boot to dry thoroughly before applying much traction. With a leg weighing from twenty to twenty-five pounds the required pull of about six pounds will be attained when the cord is at an angle of about 15 deg. to 18 deg. When this plaster boot is properly applied the points of traction are so distributed as to insure the patient against discomfort from too great a pull at any one point.

In making the boot, the leg should be covered with cotton batting from the toes to the knee, making that about the ankle and foot fully two inches thick. This is covered snugly with a roller of dressing gauze of eight thicknesses, which gives a smooth surface over which the plaster can be applied with the incorporated straps evenly and tightly. Over the calf and about the knee there should be very little cotton. In a few days the leg shrinks in size, of course, and then nearly the whole pull of this boot is on the malleoli, instep and heel tendon, and if they are not well padded it will be uncomfortable. In order to lessen this pull on the foot it is an excellent plan to pull these upper ends of the lateral canvas strips, which are eight inches long, tightly up the thigh from time to time and fasten them there with circular straps of adhesive plaster around the thigh. This plaster boot and the canvas strips give a much better pull than the adhesive plaster when merely confined with a muslin roller. The pull with it alone is not quite so well distributed as when the boot is used in combination with the lateral adhesive strips as I formerly used them, but when we consider the annoyance of the adhesive plaster stretching and the foot block having to be readjusted in consequence, the intolerable itching and excoriation, and occasional infectious dermatitis caused by it, there is really no favorable comparison to be made. Indeed, a bad crop of boils in one patient along the track of these adhesive straps was the cause of my using the canvas strips for the first time.

In the method which the enthusiasm of Dr. Gurdon Buck seems to have fastened so firmly in the professional mind of the world, as well as upon all the fractured thighs, for the last forty years, a very much greater traction is necessary than is

the case with this suspension apparatus, for the obvious reason that enough weight must be applied to overcome the friction of the leg and the thigh on the bed before any traction is exerted on the muscles about the seat of the fracture. This is usually all that can be borne (15 or 20 lbs.), but rarely ever enough to prevent shortening. It is true this is lessened more and more by elevating the pulley at the foot of the bed over which the cord runs until the foot and calf rest but slightly, or not at all, upon the bed, but just in proportion as this is done, does the Buck's apparatus pay homage to the suspension principle. The leg being lifted very much, however, by these adhesive strips at the ankle, could not be borne at all on account of the tension on the hamstring tendons, as any one can test in a few moments by sitting on the edge of one chair and resting his heels on the edge of another.

In the Hodgen apparatus what friction there is is that of the leg and thigh upon the canvas hammock, and this actually *aids* the necessary traction instead of retarding it, so much so that if the patient kept perfectly still it would be sufficient of itself to maintain the required pull of five or six pounds. Finally, as to traction, I have found this method of distributing the five or six pounds necessary, between the padded canvas boot with the canvas strips and the friction of the thigh on the hammock, to be most efficient in every way.

Painful, clonic spasms of the thigh muscles can usually be controlled at once by flat sandbags spread out over the front of the thigh, which is otherwise always uncovered for inspection and palpation. When the patient is small these sand-bags or others, laid across the frame at other points, will give weight to the leg and make the resultant traction more horizontal and not so lifting as when the traction is increased by moving the bed and increasing the angle of the suspending cord. I had one patient of six treated in this way, with absolutely no shortening. I think perhaps children of this age could be just as well treated by an ambulatory dressing, although the result could not be better.

To enumerate the advantages of this appliance, those of first importance, of course, are the results. I think the testimony of all surgeons who have given the Hodgen splint a fair trial would be that they had practically no shortening. In fourteen

cases treated by myself there was no shortening at all, except in two, which I will mention again further on. Such good results are due to the evenly and constantly acting pull, and can not be obtained with any degree of certainty if the pull is *not* even and constant. Secondly, I think union is facilitated by the exercise which both the patient and the limb gets. These patients, from the first, sit half up to eat their meals, or to use the bed-pan or urinal; in fact, they move about all over the bed, and even lift themselves from one bed to another when it is rolled alongside. No matter what the movement of the patient, *provided it is within the range of motion of the hip joint, the seat of fracture is absolutely undisturbed. The frame, canvas and limb, above and below the fracture, swing as a whole, suspended between the pulley cord and the ligaments of the hip joint.* This is easily demonstrated by swinging it from side to side by a push of the hand. This can be done at any time from the very first, with no complaint whatever from the patient of movement at the seat of injury or pain.

Thirdly, I would mention the comfort of the patient; a weighty consideration in the case of private patients, but sometimes a matter of less moment in hospital practice. The comfort of the patient is obvious from the description I have just given of his liberty of movement. One of my patients was a girl of twelve who was rarely still while awake; she occupied herself with all manner of amusements, and went from one side of the bed to the other forty times a day, and yet the result was perfect. Another, a boy of sixteen, with a fracture through the great trochanter, was found one day out of bed with his sound foot on the floor and his elbows resting in the window. He was alone in the room, and the provocation was a strong one—a circus parade going by. His suspension apparatus swung about and accommodated his every movement, so that no harm came to his thigh.

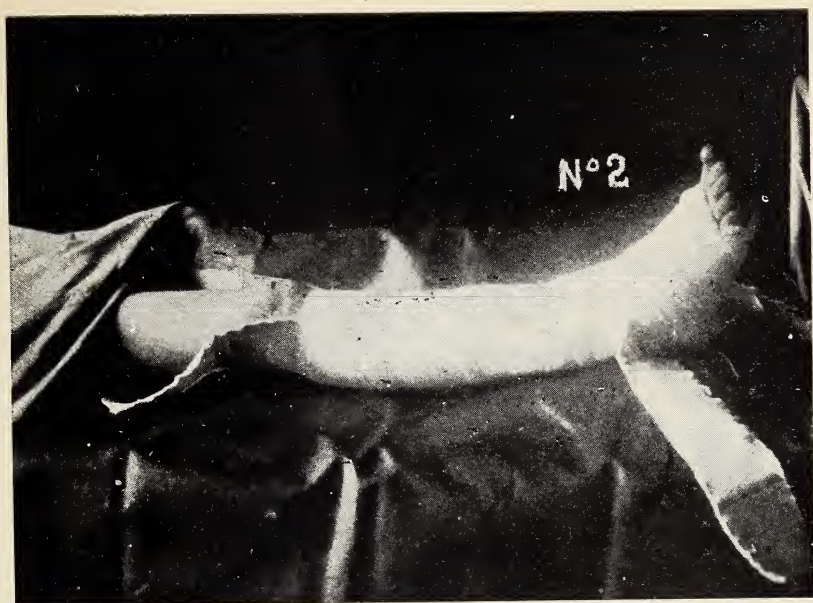
It is unfortunate that a written description of this apparatus can not convey an adequate idea of its effectiveness. In Hamilton's and Ashhurst's text-books this splint is classed along with Smith's anterior. This is the strongest evidence to my mind that neither writer ever saw the Hodgen apparatus properly applied. Ashhurst gives it three lines and says it is similar in action to the Smith's. Hamilton says practically the same thing and dis-

misses the subject by saying that no suspension apparatus can ever give any useful amount of extension. The facts are that the Smith's splint does *not* afford any useful amount of extension while the Hodgen *does* afford it in a more useful amount than any other appliance yet devised. And this is the chief difference between the two.

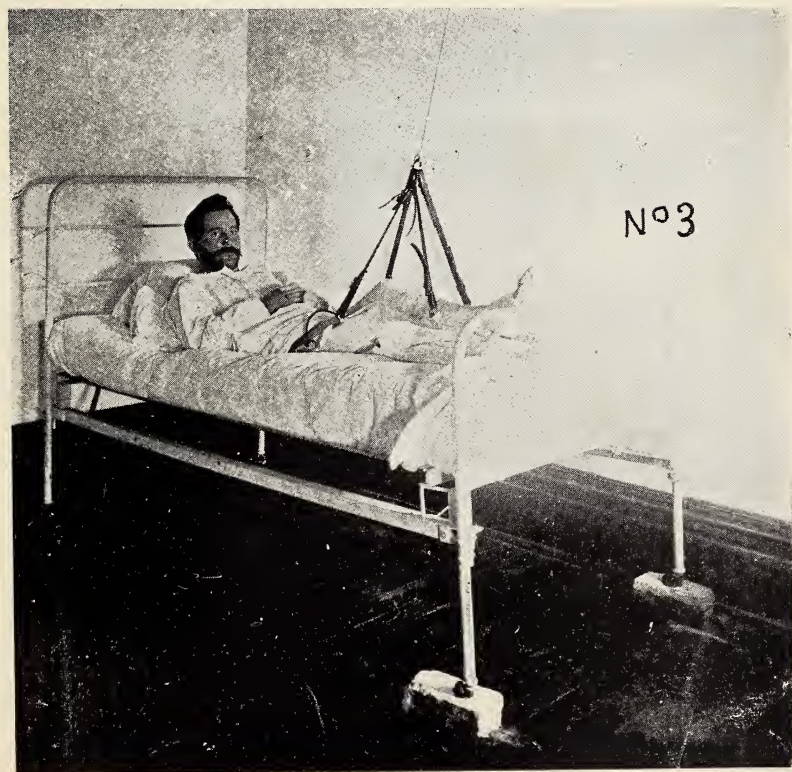
Fig. No. 1 is a photograph of the frame and canvas; both, however, have been changed somewhat since the picture was taken. Fig. No. 2 shows the leg in the plaster boot, with the incorporated canvas strips. This boot may be extended above the knee, in which case it gives a somewhat better pull, but, except in very heavy legs, it is not necessary and has the slight disadvantage of leaving the knee stiff for a few weeks afterward. Fig. No. 3 shows a patient with a simple fracture of the right thigh. At the time he was hurt he also sustained a crush of the left leg necessitating amputation at the middle of the thigh. The stump suppurated and required daily dressing for weeks, and it is not difficult to imagine how troublesome would have been these dressings and the use of the bedpan had the right limb been pinned down with a Buck's extension and sand-bags. In another case a man had his thigh caught between the drawheads. A compound, comminuted fracture with the protrusion of two great bunches of muscle as large as the fist. As the artery was uninjured, numerous free incisions were made in the skin; gauze drains introduced, the torn and ragged muscles cut away, fragments of bone removed, the broken shaft united with two of Hansmann's silver plates and screws, the whole enveloped in a hot, carbolized, wet dressing and swung up in a Hodgen splint *without* extension. In this case the hammock was made of two pieces of canvas—one under the thigh, the other under the leg. The limb was very comfortably supported, while being dressed, by the lower or leg half of the hammock, while the broken ends were held in place by the silver plates. For three or four weeks the carbolic poultices were changed every four hours by a single nurse and without pain to the patient. The sepsis was severe, and the thigh had to be repeatedly incised on all sides. When the under side had to be cut and drained, and indeed at every morning dressing, it was our custom to slowly elevate the limb by means of the



Photograph of Frame and Canvas.



Showing Leg in Plaster Boot.



Showing Splint Applied.

N. O. Polyellnic

pulley, and at the same time slip a hard pillow under the patient's back and sound hip. Any one who has treated a suppurating thigh without such suspension will readily see what a help it was in this case, in dressing the limb and in the use of the bed-pan, and in being so easily able to change the position of the limb, and to otherwise make the patient comfortable. I feel sure that without this suspension, which so much facilitated the drainage and cleaning of the wound, this man would have lost his limb and possibly his life. The silver plates as usual, in spite of the suppuration, were covered in and gave no trouble, and the man now walks around with a perfectly straight leg, and with one inch of shortening.

The other case which resulted in shortening was one of the neck, probably intra-capsular, in a white man, aged 66. The fracture was demonstrated under chloroform to the two physicians in attendance and the limb swung up in a hammock without any other traction being used than was afforded by the friction of it on the canvas. He took it off that night because he got tired of lying on his back. He suffered a great deal for forty-eight hours and then put his leg back in the Hodgen himself. I did not think he would get union so was not particular about keeping him still. He used the swing intermittently for four weeks. He then went about on crutches for several months, saying his doctors did not know what they were doing, that his thigh was not fractured at all; that it never hurt him at all after the first day or two, and that he only used crutches because it was weak. He walks with a cane now with difficulty, and judging from his gait he has at least three inches shortening.

One of our patients was a man six feet three inches tall, who weighed 260 pounds. He was an engineer, and in the railway wreck which fractured his thigh he sustained a great many cuts and bruises, particularly on the leg of the injured side, so that no extension boot or plasters could be applied for ten days. It was swung up immediately, however, and the friction of the heavy limb on the canvas allowed of enough extension to make him comfortable. After the first few days, and with a head-rest under him, he sat up in bed for his meals, bathed himself, used the bed-pan, and had his bed made up daily without even any discomfort; in fact he was always anxious to get at this morning

exercise because he could then recline on the head-rest the balance of the day and read or write, as he pleased.

In addition to these fourteen cases of fracture of the femur, one intra-capsular, one through the trochanter, one compound, comminuted and infected, the rest simple and uncomplicated, except as I have mentioned above, I have used it in the following injuries and diseases of the thigh and leg: one resection of the head, neck, and great trochanter for caries; one extensive erysipelatous suppuration of the thigh and popliteal region; two of compound fracture of the tibia; one penetrating wound of the knee joint which drained for a few days but did not suppurate; one partial and one complete resection of the tibia for osteomyelitis. All the patients of this miscellaneous group derived the greatest comfort from having the sensitive limb suspended and free from the painful influence of moving the body, jars against the bed and the like. In these cases, of course, no extension was required.

Although I have not yet had the opportunity to apply the Hodgen in such cases, I feel sure it would be far better than anything else in the treatment of a gonorrhoeal knee joint, and in an incipient hip joint disease where, for any reason, the patient was unable to get about with an ambulatory dressing.

N. B.—I have neglected to say anything about the elevation of the foot of the bed. This should be from four to eight inches, according to the amount of traction applied, and according as the body of the patient is heavy or light, which is the measure, of course, of the counter extension.

THE QUALITIES WHICH DETERMINE A QUARANTINABLE DISEASE.*

BY ISADORE DYER, M. D., NEW ORLEANS.

MR. PRESIDENT AND GENTLEMEN—Your Committee on Scientific Essays has given me a difficult question for discussion this evening, in that it opens an entirely new field of thought in the definition of quarantinable diseases: “*The Presence of Yellow*

* Read before the Orleans Parish Medical Society, November, 1893, by direction of the Committee on Scientific Essays, and to open the discussion on the subject embodied.

Fever Justifies no More Quarantine Measures than that of Typhoid'' is the question upon which I am asked to submit an argument. I must state in the beginning that my experience with yellow fever is limited, as I have only had the experience incident to having had the disease when I was a child.

My opinion, therefore, must be based upon impressions and upon such views as I may have deduced from statistics and correlating facts.

Quarantine is a measure directed primarily at the protection of the public health, and in its ramifications it orders the control of diseases of a certain class—namely, contagious and infectious diseases.

This class broadly includes all those diseases which spread from an original site to adjacent and more remote neighborhoods, whether that site be an individual or a locality affected.

Because rigid regulations determine and operate the more frequent quarantine procedures, we have grown to consider that all quarantine means the more rigid kind of quarantine, and I am presuming in my argument that this is understood, for we must realize that quarantine in degree is adopted by all in cases of transferable, transmissible or infectious diseases.

What really determines the necessity for quarantine and to what extent?

Upon this proposition the argument would seem to be largely dependent. We must understand what is meant by quarantinable diseases, and where lines of distinction are to be drawn.

We must recognize the factors which determine the time at which a disease becomes quarantinable, whether it possesses the elements which place it in such a category, and to what extent.

In certain localities certain diseases become so prevalent that they menace the public health, yet they are not acceptedly infectious or contagious diseases; for example, malaria and its congeners.

Again, certain diseases become so prevalent on account of climatic and telluric conditions that few of the community escape the disease in question, and in numerous instances the mortality develops into distressing proportions. These diseases not at all infrequently spread from one locality to another, and

rapidly, being carried by the routes of travel and the attendant vehicles of transmission.

Moreover these diseases are recognized as transferable or as transmissible from person to person, from locality to locality, and the etiologic factors and bacteriologic elements have been isolated, even if questioned. Such are dengue, grippe, etc.

Against these, notwithstanding their prevalence, and notwithstanding their evidence, no suggestion of quarantine has ever been made.

Still another class of diseases exists in constantly increasing proportions, carrying with them the seeds of death, and threatening wherever they exist, one of them accounting for a large percentage of every urban mortality, and yet no occasion for quarantine has been recognized, because the diseases are of slow development. I refer to syphilis and tuberculosis.

Some of the diseases I have just named are undoubtedly contagious, as others are most likely infectious, thus in all instances fulfilling the indications for quarantine measures, therefore in the full scope of those diseases known as quarantinable diseases.

Quarantinable diseases then must be considered as those which threaten the public health by their rapidity of spread, their frequent occurrence and their high mortality rate.

The diseases which are distinctly classed as dangerous enough to be quarantined against, therefore, are yellow fever, typhoid fever, small pox, cholera, the plague, etc.

The measures of quarantine are enforced usually against some of these diseases only when the epidemic nature of the disease is determined, and a consequent (an *a priori* argument) mortality results.

Unless both are *pari passu* the law does not in most places begin to work.

For example, although New Orleans had as many as ninety-odd case of small-pox at one time within recent years, and although the mortality was as high as it should be with such a number of cases, the number of cases was confined within certain defined areas of population, and the disease did not become epidemic, although it lasted for months—in fact, over a large part of two years. All because small-pox is recognized as a

disease preventable by vaccination, and because the horror of it, at one time existent, has passed.

No quarantine measures were adopted by other States or cities at the time, notwithstanding the virulence of the disease in question.

In 1892, while I was in Paris, there were 200 cases of cholera in one of the districts of Paris, but there was scarcely a newspaper comment of this condition, although Texas, nearly 6000 miles away, had already begun to quarantine.

Along with the rapid strides of civilization, as advanced methods have grown into common usage and into common knowledge, medicine has grown so potent to the mind of the average citizen that the fear of disease as such has been reduced to a minimum.

Where formerly the knife was suggested to the patient only that the priest and lawyer should previously be summoned, now the most serious operations are discussed calmly by the patient, and the result anticipated with as much *sang froid* as the attack of indigestion which must follow an indiscreet indulgence of appetite.

In spite of this, the people of this country especially have conserved the spirit of fear which existed in the eighteenth century regarding yellow fever, which committed its ravages for many succeeding years, and which only halted when it had itself immunized the communities in which it flourished.

There was undoubtedly reason for trepidation at the presence of the disease as it then occurred.

In 1897, and again in 1898, yellow fever appeared wearing a friendly mask, but so badly disguised that the name of it was accidentally pronounced, and the ghost of past epidemics rose in a mighty swirl and swept intelligence and courage before it.

It is a fact that *New Orleans had a lower average mortality, in 1897, from all causes than in any previous year save one, 1889, since and including 1886 (see Table II).*

It is a fact that New Orleans had a lower average mortality from infectious and contagious diseases than most larger cities of the United States.

It is a fact that thousands of cases of fever went without classified diagnosis in 1897 because of their mildness in type and because of the antipathy on the part of the profession generally,

and the objection on the part of the laity as a whole to report cases of yellow fever because of the house quarantine measures.

As a consequence the even then low percentage of deaths from yellow fever was probably ten times greater than it should have appeared to be.

In 1898, the early commercial aspect of the control of the disease in New Orleans, the popular spirit of injustice directed at those physicians who had the moral courage to obey the law created by the Board of Health, all completely and successfully stultified any idea of a proper estimate of the disease, as in New Orleans there were reported for the most part only those cases more seriously ill, while the milder cases were passed along under the name of the "prevailing fever." Even laymen would say that they or their families had gone through an attack of "*prevailing fever*," in which they suggested, with a smile, that "icteroid" symptoms had been present.

Why have I stepped so aside to depict the characteristics of yellow fever conditions here? Because I wished to draw an antithetical comparison with that other disease which in my premises has been compared with yellow fever in importance. In New Orleans typhoid fever is so slight an element in the city's mortality that it scarcely appears in the tabulation of the causes of death in any given year.

But when you study the tables of Washington, Chicago, New York, Boston and San Francisco, you find it quite an item of concern and comment. There are constant references to outbreaks of typhoid fever in larger and smaller communities—always with a mortality of so appalling a type as to create municipal investigation.

Only last fall (1897) there were two country towns in England almost decimated by an epidemic of typhoid fever.

But typhoid fever is not a quarantinable disease, because it is not a contagious disease, nor an infectious disease in the widely discriminating sense of distinction. But still the mortality rate is high, still the disease is dreaded, and reasonably, for where yellow fever, even at its worst, kills or leaves a victim in five or six days, typhoid stays with him for as many weeks, clutching at his throat by way of his stomach, and yielding ground inch by inch.

Either, then, the application of quarantine must be changed or we must broaden its definition.

He who runs must read that for the past two years, no matter what '53, '67 and '78 were as epidemics, the fever in New Orleans, as observed and as recorded, was no more severe than influenza or dengue have been, and by no means as serious in its record of deaths as tuberculosis, diphtheria or typhoid elsewhere.

My conclusions are therefore that if the quarantinability of diseases is to be determined by any one thing, that the virulence of the disease from the standpoint of mortality should weigh first in importance, and that *where the occurrence of a disease is to be considered, its character should above all and before all be fully understood and fully appreciated.*

The time is past when the mere name of a disease should be sufficient to determine an action of such supreme importance and so full of consequences as an active quarantine.

I have not felt in drawing these conclusions that my text confined me to *the actual comparison of typhoid and yellow fever, but that typhoid stood for any disease which possessed the quality of being absurdly discriminated against by quarantine.*

Therefore, gentlemen, I feel that I have submitted my argument, and that I have, with some pardonable ignorance, demonstrated the *reductio ad absurdum* which your committee gave me to prove.

[SEE TABLES ON SUCCEEDING PAGES].

TABLE I, SHOWING THE DISEASES CAUSING DEATH IN THE ORDER OF THEIR PREVALENCE IN DIFFERENT CITIES
 Obtained by the author from the several Secretaries of Health Boards, and arranged by him in tabular form.

Boston for 1897.	Washington for 10 Years.	Chicago for 1897.	St. Louis for 1897.	New York for 1897.	San Francisco for 1897.	New Orleans for 10 Years.
Consumption. Pneumonia. Heart Disease. Violent Deaths. Cholera Infantum. Diphtheria. Apoplexy. Cancer. Bronchitis. Meningitis. Marasmus, etc. Nephritis. Old Age. Premature Birth. Hydrocephalus, etc. Typhoid Fever. Scarlet Fever. Bright's Disease. Inanition. Alcoholism. Whooping Cough. Diarrhea. Croup. Septicæmia. Syphilis Cong'l.	Phthisis. Acute Lung Diseases. Typhoid Fever. Apoplexy.	Nervous Diseases. Consumption. Pneumonia. Cholera Infantum. Bronchitis. Heart Disease. Diphtheria. Typhoid Fever. Cancer.	Consumption. Pneumonia. Diarrheal Diseases. Diseases Circulatory System. Diseases Brain or Nervous Systems. Bright's Disease and Nephritis. Enteritis; Gastro-Peritonitis and Gastritis. Bronchitis. Other Diseases Respiratory Organs.	Phthisis. Pneumonia. Diarrheal Diseases. Heart Diseases. Bright's Disease. Diphtheria [Group. Apoplexy. Cancer. Gastro-Enteritis. Bronchitis. Tuberculous Diseases, other than Phthisis. Meningitis. Scarlet Fever. Infantile Convulsions.	Heart Disease. Pneumonia. Violent Deaths. Cancer. Atrophy, Inanition. Nephritis. Old Age. Hepatitis. Apoplexy. Encephalitis, etc Bronchitis. Enteritis Infantile Convulsions. Typhoid Fever. Paralysis. Cholera Infantum.	Phthisis. Diarrheal Diseases. Heart Disease. Brain Diseases. Pneumonia. Nephritis.

TABLE II, SHOWING TOTAL DEATH RATE OF ALL DISEASES PER 1000 INHABITANTS, PER ANNUM, FOR THE YEARS 1886 to 1896, WITH THE MEAN AVERAGE DEATH RATE PER ANNUM.

From Statistics Obtained and Arranged by the Author, as in Table I.

Year.	Boston.	Washing- ton.	Chicago.	St. Louis	New York	San Fran- cisco.	Total.	New Orleans.	
								White.	Colored.
1886	13.09	22.71	19.42	19.08	25.99	17.85	26.43	23.59	34.09
1887	24.41	22.14	20.27	21.04	26.32	18.27	25.02	22.36	32.12
1888	24.03	23.37	19.65	20.04	26.43	17.36	25.41	22.90	32.04
1889	23.52	23.12	17.56	17.08	25.32	21.26	23.98	21.27	30.93
1890	22.70	23.94	18.09	18.02	24.87	20.15	28.58	24.96	37.88
1891	23.09	23.59	22.20	19.07	26.31	20.94	26.99	23.97	35.01
1892	24.04	24.10	18.23	20.05	25.95	18.36	29.52	25.92	39.59
1893	24.55	24.74	16.92	19.06	25.30	18.36	28.17	24.40	38.19
1894	23.66	22.73	15.24	15.69	22.76	18.36	24.88	21.91	32.14
1895	22.60	20.57	15.14	16.65	23.12	18.07	29.25	25.39	38.68
1896	22.53	21.43	14.36	16.07	21.52	17.08	28.34	23.97	38.69
1897	.....	20.71	.....	.....	19.53	.....	24.47	21.89	30.77
Mean	23.47	22.76	17.92	18.77	24.44	18.73	26.57	23.46	35.01

Clinical Report.

AN INTERESTING CASE OF MALARIAL HEMATURIA.

BY EDWARD D. NEWELL, B. S., M. D., KING, LA.

MR. GEORGE C., white, aged 30, a fine specimen of robust manhood, lives on Col. Wm. S. Lovell's property, on Davis Island. Had slight attacks of malaria during the late fall, no decided chills; would be indisposed for a few days of one week and well the next week. Did not take any active treatment. On the 23d of November called to see him; had temperature 101 deg., but was up and not much sick. I ordered him to go to bed, to take strictly liquid diet until temperature became normal. Gave 15 grains quinin divided into three doses, and to be taken for two days; also a tonic of arsenic and iron. On the 24th he had a slight chill, although he had taken the 15 grains quinin, but had not remained strictly in bed as directed. On the 25th, at 3 P. M., I saw him again; he was up and entirely free from fever; had taken 15 grains quinin. He ate for dinner some canned soup—tomato—and drank some milk. Later in the evening he became very nauseated and vomited a great deal. Says nausea was most violent, and he felt as if he had a lump of lead in his stomach. This three-cornered brick in his stomach—as he described it—continued for two days and worried him a great deal. At 8 P. M. he passed bloody urine in large quantities. I was sent for at once, but as I had to cross a river to get to him, and it was a very dark night, I did not see him until 1 A. M., the 26th. Found him excited and with anxious expression, and complaining of the heavy sensation in stomach and the intense nausea, although he was vomiting very little. His stomach had been completely emptied before I saw him. *His temperature was normal and he had not had the slightest chill.* I emphasize this to show that the quinin must have caused the hemorrhage from kidneys. The liver was ten inches in nipple line, the patient standing, and spleen was distinctly felt.

At this time he had passed about one quart of bloody urine, but to call it bloody is misleading, as it was brownish-black and

tinted green along the sides of the vessel. Neither the stools nor the contents of stomach showed any blood at any time during the sickness. I gave him $7\frac{1}{2}$ grains calomel and the same of sodium bicarbonate. Also gave him 12 drops turpentine on sugar. I put a small blister over stomach that relieved him considerably. When not suffering from nausea he would not complain of any pains and would sleep for half an hour or more. At 3 A. M. gave him 5 drops more of turpentine; 7 A. M. gave him a tablespoonful of magnesium sulphate; 7:30 gave him 10 drops turpentine. Between 7 and 10 he had three loose, copious actions from bowels. The stools were very dark and slimy—looked very much like the fresh contents of the gall-bladder without dilution. He continued to pass dark urine, and now the characteristic violet odor was present. Temperature at 11 was $100\frac{2}{5}$ deg. At 12 M. urine cleared up some and did not contain so much albumin; in the previous tests the moist albumin almost filled the test tube.

Dr. M. R. Purnell, of Ashwood, was called in to consult with me. He agreed with me, but suggested potassium nitrate as a diuretic, and appolinaris water in as large quantities as patient could be induced to take it. At 3 P. M. gave 20 grains potassium nitrate and at 3:30 5 drops turpentine. From then on the potassium nitrate was repeated every four hours. A tablespoonful of magnesium sulphate was given every six hours, unless the bowels acted *freely*. The turpentine was continued enough to keep the violet odor in urine always present. At 4 P. M. he had a chilly sensation, but hands and feet were normal, and it soon passed off; but at 5 P. M. complained that he was hot, temperature was $103\ 2\text{-}5$ deg. Gave him $3\frac{1}{2}$ grains acetanilid with some caffen, which reduced his fever without any trouble. Had action from bowels at 4:30. Urine cleared; then at 12 still very dark, but has a slight red tinge throughout, much albumin. At this time gave him $7\frac{1}{2}$ grains calomel again. Between 8 and 10 that night he began to show more profoundly the effects of the poison, his pulse was 140, his clothes were saturated with a cold perspiration, and he looked anxious. While attempting to get on the stool he fainted and had to be carried to his bed. Before this he had had no trouble by himself. He has since told me that he was sorry when he awoke from that unconsciousness; the cold sweat, the nausea,

the revolving feeling of the brain made life not worth the pain. He was very much jaundiced now, about the color of a light orange; it was noticed when I first saw him, but had deepened during the day.

At 12 o'clock that night he had another cold sensation, said he was freezing, although feet and hands did not indicate a chill. Gave whiskey internally and strychnin nitrate (1-40) hypodermically, and he was soon relieved. Temperature went up to 104 deg., did not remain so high but a little while. From then on I gave the strychnin every four hours.

Sunday morning Dr. Purnell came again; he fully agreed with me and treatment was not changed. But the patient continued to grow worse, temperature 102 deg., pulse 140-150 and very weak, tongue was coated, stomach still congested, but nausea not so great, and patient unable to assist himself at all. The liver was acting freely, he had had a dozen actions in the last twenty-four hours, the kidneys acted freely but urine was still a brownish-black and had a great deal of albumin. We both realized the condition could not last but a little while longer, but we were powerless to assist. I feel fully satisfied that we would have instantly revived our patient if we had injected 2 to 4 quarts or more of the warm normal saline solution at just this time, when all the organs had resumed functions, but the circulation was filled with the poisons of the plasmodium malarie, and the broken-down red corpuscles. I shall certainly try it on the next one of those patients who presents such a condition.

That night bowels began to act even more freely than before, action from kidneys at 10 P. M., and at 10:30 from bowels; 11 P. M. actions from bowels and kidneys; 11:30 actions from bowels and kidneys, urine still very dark. At 12 patient became very much worse; was almost collapsed, pulse 150 to 160 and almost gone; he could scarcely be understood, his voice was so weak; could not assist himself in any way. I gave him strychnin and nitroglycerin (1:100) at once and applied heat to extremities. 12:15 action from bowels and kidneys. This passage from kidneys was scant, but was decidedly lighter and had only about 10 per cent. moist albumin. Actions from bowels at 12:30, and he had rallied somewhat. Actions from bowels and kidneys at 1 and at 1:45; urine much lighter and only a small

quantity of albumin. There was from ζ i to ζ iii urine passed each time. 2:45 another action from bowels and kidneys; at 5 he passed ζ iii urine free from albumin, and at 7:15 he passed vi urine that was slightly cloudy, but free from albumin. From this on the urine was passed freely, was normal in color and entirely free from albumin; bowels continued to act freely—a movement every one or two hours. His improvement began when he passed the first urine that was somewhat clear, and although quite slow for the first two days, it was uninterrupted. At 7 A. M. the 28th his pulse was 145, but much improved; he was taking nitroglycerin and strychnin every four hours, two hours between the doses, both given hypodermically. Before now he had not had nourishment of any kind, nor had he called for any. Food would only have increased the congestion of stomach, aggravated the nausea and prevented our giving any medicines by stomach.

At 8:30 he was given a teaspoonful every ten minutes of iced milk and lime water. After three teaspoonfuls it was given every five minutes, as it did not nauseate him in the least; he was now piteously calling for more milk, and in a few hours he was allowed ζ i- ζ ii at a time combined with whiskey. Milk was continued through the day with no bad effects. The next day he took in addition chicken-tea and “peptonoids.” When the urine cleared the turpentine was discontinued, the KNO_3 was reduced to ten grains and at longer intervals, the MGSO_4 was reduced in dose and not so frequent. On the 29th pulse was 140, temperature 101 deg. and patient doing splendidly. The interval between the doses of the nitroglycerin was lengthened and on 30th dropped entirely, but the strychnin was continued until pulse and temperature were normal. Besides the medicines I have previously mentioned he also took five drops Fowler’s solution combined with five drops tr. of the chloride of iron; this was begun on the 26th—every six hours at first—and continued for two weeks.

Patient was not allowed to move his head from pillow, or move his body or any of his limbs, after his pulse became so weak and fast. A nurse was always stationed at his head to prevent a single movement. So many of these cases die from heart failure after the crisis is over. He was not allowed a pillow under his head. Within one week from first hemor-

rhage patient was out of danger. Skin had cleared up and he had a splendid appetite.

COMMENT.—The points that are most interesting in this case are :

1. That the patient had not had a chill, that he did not have any fever five hours previous to the attack, nor did he have any fever five hours afterward. From this I conclude that the hemorrhage was brought on by the quinin—that this was the exciting cause.

2. That from the time he first began to pass bloody urine until the first change was *fifty-two hours*—an unusually long time, still the patient recovered.

3. That the change did not occur until we had succeeded in getting an almost constant stream from the bowels.

4. That no quinin was given in this case.—[?ED.].

5. That patient did not receive nourishment of any kind for sixty hours, and we were thereby able to give the medicine with but little trouble. That is usually the greatest trouble in these cases.

Clinical Lectures.

INSTRUCTIVE CASES OF HEART DISEASE.

1. THE TREATMENT OF CARDIAC INCOMPETENCE BY THE NAUHEIM BATHS.
2. THE INDICATIONS FOR THE TREATMENT OF ANEMIA OCCURRING WITH CARDIAC DISEASE.
3. THE DIFFICULTY OF DIAGNOSING ULCERATIVE ENDOCARDITIS.
4. WATCHING THE DEVELOPMENT OF THE PERICARDITIS FOLLOWING ACUTE INFLAMMATORY RHEUMATISM.

BY DR. M. Z. FITCH, PHILADELPHIA, PA.

Being a Series of Notes Reported for the JOURNAL from the Philadelphia Clinics.

THE TREATMENT OF CARDIAC INCOMPETENCE BY THE NAUHEIM BATHS.—The following case is interesting because of the treatment. A little girl ten years of age exhibits a great bulging

of the left side of the chest-wall; the impulse beat of the heart is distinctly visible, but it is very diffuse and rapid. There is with the beat a slight thrill, and occasionally the beat is intermittent. In spite of the strong action of the heart, the arteries are not well filled and there is much regurgitation. The left ventricle is much enlarged. The liver is enlarged and congested. There is a double mitral murmur and there is also a murmur at the base, and probably there is stenosis of the aortic valves. No aortic regurgitation can be made out. There is a loud murmur of the first sound of the heart over the aortic valves.

Now, this little girl has had rheumatism when she was seven years of age. There have been two attacks, one about two years ago. In the last one the left arm and knee were affected. Only for the last three weeks has the dyspnea been very marked. This great deformity of the chest can be seen only in children, since in them the thoracic wall is much more yielding.

Her temperature is normal. There is no albumin in the urine. In heart disease the albumin found in the urine is apt to be very slight.

Now, on seeing a bulging of this size over the heart, the question would naturally arise as to whether or not there is fluid in the pericardial cavity. The impulse of the heart is so strong and the murmur so distinctly heard that it was not considered probable in this case.

As to the treatment—it goes without saying that she has been trying digitalis. But she is now to have the Nauheim baths. She will first have preliminary baths of salt and water. At the springs the patients are not put immediately into the baths containing the alkalies and carbon dioxide. The first baths are simple brine baths of a certain strength. Then follow baths without the free carbon dioxide, then the baths from the Nauheim spring, just as it comes out of the earth. The effect of the baths is certainly to diminish dilatation and they act as a stimulant to the heart.

It is not recommended to discontinue the digitalis. It will still be continued, either as the infusion, or the tincture or the powder, the three preparations which can be used with safety. So much can not be said of the fluid extract. It is well always to ascertain how your druggist makes the infusion. Some of

them use the fluid extract in its preparation, but it should always be made from the leaves themselves.

The powder is an excellent thing, one grain three or four times a day. For hypodermic use, the best is probably "digitalin." The best preparation of digitalin is the French preparation. The preparations which are soluble in chloroform are the most accurate.

This child is suffering from a high degree of cardiac incompetence, but with the digitalis and bath, and rest in bed—which is as important as any part of the treatment—she ought, in a week or two, to be able to walk, instead of being carried around.

THE INDICATIONS FOR THE TREATMENT OF ANEMIA OCCURRING WITH CARDIAC DISEASE.—The question arises in the cases of anemia occurring with heart disease as to which condition to treat. The following case illustrates the advantage of treating the anemia, rather than the cardiac condition :

This girl is 20 years of age; there is a history of heart disease in her family, her mother dying of this trouble. This woman has been well with the exception of a history of congestion of the lungs some three years ago. It is well to remember that this congestion was secondary to cardiac disease. At this time the patient was ill with what she called the grip; certainly she was left in a very weak, wretched condition. She recovered, however, and never noticed anything wrong in her condition until five months ago, when she began to feel short of breath on exertion. There also developed some palpitation and pain over the cardiac region. She also experienced feelings of dyspepsia, a sense of fullness on eating, vomiting of food and constipated bowels. It is said that she had another attack of the grip and it is very likely that it was the real thing. She feels tired all the time. She is quite anemic looking, and her anemia might be sufficient to account for all of the symptoms. But on listening to her heart a murmur can be distinctly heard, best transmitted to the apex and synchronous with the systole. She has had some swelling of the feet, also a symptom of chlorosis. There is no doubt that an examination of the blood would show an increase in leucocytes and a small per cent. of hemoglobin.

Now, if the condition of her blood were improved, all these symptoms would disappear. We can cure her much better by

treating the chlorosis rather than the valvular disease of the heart.

She has never had rheumatism, which is a common cause of valvular disease of the heart. At least as many as 20 per cent. of the cases of acute articular rheumatism result in cardiac disease. According to some high authorities anemia produces valvular disease of the heart. On the other hand valvular disease of the heart produces anemia.

This patient undoubtedly can be greatly benefited. The valvular condition is not very serious. Of course her physician should advise her not to perform any very heavy manual work. But there is no reason to give digitalis. There is no marked sign of cardiac incompetence. The edema of the feet does not necessarily show cardiac incompetence. It is just as much a sign of chlorosis. The best way to treat her is as an ordinary case of anemia, giving her iron and laxatives.

Now, if she were in a condition to afford it, I should be perfectly willing to try the new preparation of iron called ferretrin. It has a pleasant taste, but we would do fairly well with one of the old-fashioned preparations, say, tincture of chloride of iron.

The test of the woman's blood has just been made, and it shows only 40 per cent. of hemoglobin. It will do her a great deal of good to treat her with iron, though undoubtedly the murmur is an organic one. She will be given two or three grains of carbonate of iron, three or four times a day.

THE DIFFICULTY OF DIAGNOSING ULCERATIVE ENDOCARDITIS.—This woman had been perfectly well up to within two weeks before placing herself under treatment. At this time she had a sense of aching all over; she had moderate chills, with some fever. This condition was followed by dyspnea, vomiting and diarrhea. She had a diffused pain over both sides and became very weak. She had a sensation as if wishing to cough, but was unable to do so. Her temperature at the outset was 100, afterward it ran as high as 103 deg. In short, the woman had an irregular fever, but was not very sick, her symptoms not being marked in severity. Physical examination showed evidences of an enlarged heart and an aortic regurgitant murmur. The second day after examination these became more pronounced, with the development of a water-hammer pulse.

The symptoms were indefinite and it was supposed that the

aortic lesion was an old latent disease, and that some acute disease which was impending had brought it into prominence. But on the fifth day the woman suddenly died. The post-mortem shows it to have been a case of ulcerative endocarditis with nothing definite on which to base a diagnosis. There was no sign of embolism nor even a marked pyemic temperature. The ulcer is situated behind the left coronary leaflet of the aortic valve. There is great tumefaction, a large mass projecting. The base of the valve is destroyed and it hangs loose, allowing the blood to pour through almost as if no valve were present. The enlargement has affected the tissues so that it projects into the auricle. There has also been a perforation of the septum, a probe passing from the ventricle into the auricle.

Here then was an acute cardiac lesion which was thought to be an old, latent one. It run its course before giving definite symptoms by which it might be recognized. It is comparatively easy to make out abnormal sounds of the heart, but not so easy to make a diagnosis. The inferences to be drawn from the sounds heard are the difficult part of the matter.

WATCHING THE DEVELOPMENT OF THE PERICARDITIS FOLLOWING ACUTE INFLAMMATORY RHEUMATISM.—The following case is interesting for the beautiful picture it presents of the development of pericarditis. The patient is a man 28 years of age who had pain and swelling in his joints. This appeared first in his fingers, later his shoulders, elbows and knees became involved.

When the man was first examined his temperature was below normal; later it became normal and remains so despite the inflammatory condition. At no time has the man had pain in his cardiac region and he has been fairly comfortable. The diagnosis of the development depended entirely on the physical diagnosis. At this time, on examination of his heart it seemed over-active, more active than the temperature would indicate. The action was a rather hurried rapid nervous movement. In the second interspace was a double impulse. There could be felt very plainly a diastolic shock. On ausculting there was no murmur, but the final sound was longer than it ought to be and there was a little division of the sounds. Now, this is always suspicious, a sign of overloading of the ventricles. In the early stages of phthisis observers have noticed this sound;

doubling of the first-sound is sometimes premonitory of mitral obstruction. But on the next day when he was examined again, all over this area was a systolic murmur, fading out at the apex beat. There was the churning, rather grating sound characteristic of the murmur of pericarditis, and not connected with the heart-sounds. Your best diagnostic point of a pericardial sound is that it is very superficial.

The treatment is, of course, most absolute rest. As the case is rheumatic we will fill him and keep him filled with sodium salicylate. But this is not all; watch the heart of course. We can by cold, limit the inflammation. After the acute stage, if there is large pericardial effusion we shall aspirate, and there is no more danger in this than aspirating for pleuritic effusion.

At this stage counter-irritation with iodine or blisters may be employed. Digitalis is contra-indicated. It will be a long time before you will permit your patient to take any exercise. Keep him in bed a month and then he must be careful about exercising. The diet is unimportant. Remember that the physical signs may be very variable, disappearing one day and returning the next.

Society Proceedings.

THE JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY.

ABSTRACT REPORT OF THE MEETING HELD FEBRUARY 6, 1899.

DR. CULLEN presented the record of a case of "*Primary Adeno-Carcinoma of the Appendix*," which had been prepared by Dr. Hurdon.

DISCUSSION.

DR. KELLY—I have been paying close attention to the relation of appendical disease to pelvic diseases for a long time, and the records of our department will show the exact state of the vermiform appendix in every case in which the abdomen has been opened.

We meet with appendical disease in a great variety of relationships. We may have cancerous disease of the appendix, as

in this case, where there was an adeno-carcinoma, which showed no relationship to the pelvic disease, but, on the other hand, we meet with cases in which the disease is dependent upon the condition of the pelvic organs. I had within forty-eight hours last week five cases in which I had to remove the appendix.

Where the disease depends upon disease of the pelvic organs the appendix may become adherent to the diseased organ, that is, to a uterine fibroid or an ovarian tumor, as is seen quite frequently. Then, again, we meet with a class of cases in which the appendical disease has followed an operation; those are more rare, but quite interesting. After a clean operation in which a diseased tube or ovary has been enucleated the patient within a few months or a year may complain of pain in the right side. The abdomen is opened and the appendix is found adherent to the seat of the former operation. I have had such a case within the past ten days where the appendix was long and adherent to the old wound.

It is important to bear the possibility of this in mind. Always inspect the appendix whenever a laparotomy is performed.

DR. ERNEST LAPLACE, of Philadelphia, read on "*A Demonstration of Intestinal Anastomosis by Means of a New Forceps.*"

Dr. Laplace stated that the object of this demonstration was to show an instrument for facilitating the operation of anastomosis. Without entering into a consideration of the operations done heretofore for this purpose, all of which have their advantages and disadvantages, it is agreed among surgeons that the ideal operation is that performed by means of sutures—that operation by which the ends of the gut are sutured together, whether we use a continuous, a Lembert or other suture. Any apparatus, any instrument, any contrivance that can facilitate the accomplishment of this operation is, he said, to be studied, and, if it possesses any merit, to be adopted in such cases as require rapidity.

He had been trying for some time to devise these simple forceps, which consist of only two ordinary hemostatic forceps, bent or curved at the end into a semi-circle, so that when the two are placed together they form a complete ring or circle, being held together by a little clasp. These two rings subserve the same purpose as the Murphy button or the Halsted rubber bags or any other support within the gut, and, in addition, no

matter what stitch is used these rings can be removed before the last stitch is taken, without any difficulty.

Dr. Laplace then demonstrated the manner of suturing the stomach to the intestine, the purpose being to unite the gut to the stomach. Putting the two openings together, he introduced one blade of the forceps into the stomach and the second blade into the intestine and clasped them. The sutures were then readily introduced. When he had sutured the bowels all around, except where the handle of the instrument projected through the wound, he then removed the clamp, which allowed the two halves of the forceps to fall apart, and drew out each half. He then inserted a stitch to close the opening left for the removal of the forceps and the operation was finished. He afterward made an opening into the stomach and demonstrated that the gut was perfectly patulous.

Dr. Laplace next demonstrated an end-to-end anastomosis. In answer to Dr. Cushing's question, "What would you do if you had to anastomose guts of different caliber?" he said that he would invaginate the two ends, and for that purpose had devised a little instrument for catching the gut at its border and dipping it down into the other before stitching it nearly all the way around and then withdrawing the forceps. This, he believes, meets all the possible indications for operation upon the intestines.

DISCUSSION.

DR. HALSTED—I think that for a lateral anastomosis this instrument promises all that Dr. Laplace claims for it, and we shall certainly give it a trial very soon. It is quicker, much quicker, I should say, than the method we employ. I should think it would be of great assistance, especially for cholecystenterostomies. It is possible, of course, to do this operation without an instrument, but it is a very difficult one.

DR. KELLY read on "*A New Operation for Vesico-Vaginal Fistula.*" Dr. Kelly said that the great difficulty in handling certain cases of vesico-vaginal fistulæ may be due to two facts. In the first place, the fistula may be a very large one, and, in the second place, there may be such an amount of scar tissue surrounding the fistula that its resistance prevents bringing together the parts. A most important finding has been the recognition of the fact that the bladder tissue itself is not often seriously

involved in the scar tissue, and the bladder can be drawn down and sutured to itself so as to close the fistula. This is a very important factor in the treatment of certain of these cases that can not be treated in the classic way.

Dr. Kelly referred to a case that came to him upon which an abdominal hysterectomy had been performed for fibroids. There was a large fistulous opening into the bladder from the vault of the vagina. It was very close to the peritoneum, high up in a virginal vagina; had been operated upon several times and there was an abundance of scar tissue. The edges of the fistula were of such character that he could have no hope of bringing them together and securing union. He opened the abdomen with the intention of exposing the pelvic floor, so that he might dissect the bladder away and sew it up. The patient had a very large ventral hernia, and, unfortunately for the facility of the operation, was very fat. He opened the abdomen, but in attempting to separate the bladder it began to tear, and tore so widely that he saw at once that a successful operation as planned would be impossible. He then cut through the top of the bladder to see if he could get at it from the inside to bring the edges together. He could not do this, and, therefore, enlarged the opening to draw the parts together, but found this could not be done satisfactorily, and was compelled to follow a novel plan, which succeeded. The bladder was widely opened, in fact split in half; he found the bladder in front of the fistula fairly movable, and made a horseshoe-shaped denudation around the fistulous opening, excluding it altogether; then, passing catgut sutures, he brought the edges of the denuded arc together. He then introduced a drain through the vagina up into the peritoneum. The patient made an immediate and perfect recovery.

Dr. Kelly then referred to a second case, in which he could not get at the fistula from below. In this case he opened the abdomen, separated the bladder, freed the fistula on both sides and brought the edges together with catgut and closed up the abdomen. The result was a perfect recovery.

DISCUSSION.

DR. HALSTED—In the first case, Dr. Kelly, did you excise the portion of the bladder that contained the fistula?

DR. KELLY—No.

DR. HALSTED—What became of it?

DR. KELLY—I left it in the peritoneal cavity, protected by a drain through the vagina.

DR. HALSTED—Does she still have a little fistula?

DR. KELLY—No, it is completely closed.

DR. FLEXNER read on “*Nodular Tumors of the Pancreas.*”

Dr. Flexner, after exhibiting the pathologic specimens from the pancreas, stated that an enlargement made out during life proved at autopsy to be a tumor closely associated with, but not directly connected with, the liver, but lying directly below and behind the liver, covered by omentum, intestine and a bit of the stomach. It proved to be a tumor which had developed in the pancreas, and was of an unusual nature. The duodenal portion, the head of the pancreas, was still present and very little altered, being quite normal in appearance. In searching for the body of the pancreas, however, nothing could be found to represent it except a band running over the tumor from right to left, which measured four or five millimeters in thickness and showed the lobulations of the pancreas. The tail of the pancreas was probably about its normal length, but not of normal appearance. The tumor, therefore, must have developed in close approximation with the pancreas, and at first it seemed to have come from behind. There were a number of cysts containing granular material.

He said that on section, however, a different condition was made out. The tumor was found to consist of two nodules, one the size of an orange, and the other the size of a child's head at birth, and these had developed within the substance of the pancreas, occupying the body and a portion of duodenal end. Although developed within the pancreas, they were separable by capsules, which proved to be also pancreatic tissue, consisting of a series of cysts.

Upon histologic examination it was proven that the tumor was an adeno-carcinoma, the type being that of the pancreas. There was no doubt, he said, that the tumor had its origin in the pancreas, and yet apparently it was separated from the pancreas. He said he thought it possible that the two masses might have developed from aberrant pancreatic tissue deposited in the pancreas.

DR. FLEXNER read on “*Lymphatic Leukemia,*” and exhibited first a large mass, consisting of the inguinal glands, pelvic

glands and retroperitoneal glands, all practically constituting a continuous mass, which had been removed at autopsy. The tumor, he said, consisted of tumor formations that had developed in the glands and run together, because the tissue binding the glands together had been implicated, more especially in the inguinal and pelvic glands. Over the inguinal region the skin was in part adherent to the enlarged glands, and the subcutaneous tissue was edematous.

Another specimen showed the bronchial, tracheal and cervical glands, all of which were markedly enlarged. Dr. Flexner called attention to the axillary glands, which showed the manner in which the glands were bound closely together over the surface of the tumor. This is an important diagnostic point in the differentiation of leukemia and pseudo-leukemia. Practically all the glands explored were enlarged, the tumor masses being for the most part soft and on section presenting medullary appearances.

The viscera, Dr. Flexner said, were free from invasion. There were two small nodules in the spleen, but no considerable metastases. The glands in the neighborhood of the pancreas had also caused invasion of that structure to some extent. In the liver there were no nodules, but some extensive new growth which followed the blood vessels.

Dr. Flexner said that the question of interest seemed to be, "What was the disease primarily? Has it been a case of lymphatic leukemia always, or did it start as a pseudo-leukemia?" To his mind, he said, the explanation that seemed most probable was that it was one of the pseudo-leukemia. It presented all the gross anatomic characteristics of that disease.

Dr. Fletcher, in referring to the first case, said he wished to emphasize the fact that the tumor felt in the umbilical region was not clinically believed to have any connection with the liver. The symptoms present during life, he said, should have made one suspect pretty strongly a pancreatic tumor, for the patient presented all the symptoms that are supposed to be characteristic of such a tumor—persistent jaundice, an enlarged gall-bladder and nausea, vomiting and clay-colored stools of a greasy character.

Referring to the second case, he said that from the first the glands did not present altogether the picture of lymphatic leukemia, but the symptoms, as a whole, suggested the presence of pseudo-leukemia.

Communications.

THE STATE SOCIETY AND THE STATE FAIR.

To the Editors of New Orleans Medical and Surgical Journal:

GENTLEMEN—When does the Louisiana State Medical Association hold its next meeting? Do you think it could be arranged to have the next meeting during the State Fair in New Orleans? I am sure the attendance would be very much greater if the meeting was held then. Respectfully,

King, La., February 1, 1899. EDWARD D. NEWELL, M. D.

A HAPPY DEATH.—The funny man, whose business it was to construct the weekly page of jokes for the *Sunday Yell*, lay on a hospital cot swathed in bandages, relates the Cincinnati *Enquirer*. He was not long for this earth. Early that morning he had tried conclusions with the front end of an electric car, with the usual results. The funny man's lips moved, and he muttered incoherently. A hospital interne stepped softly to the side of the sufferer's cot and bent his head forward to listen.

"I care not to live," murmured the jokist. "The one light in my dreary existence went out last week when my precious one passed away from this earth."

"Yes?" said the young surgeon interrogatively.

"She is dead," continued the dying man. "During her lifetime we lived together at the same boarding house. She did society for the *Yell* and wrote poetry for the Sunday issue, which effusions she signed Iolanthe. I called her Io for brevity.

"Indeed?" said the surgeon softly.

"Last week," went on the professional jokist, "she attended a wedding in a cold, damp church, wrote an account of the ceremony for the *Yell*, came home and was taken ill. Two days later she died and left me in despair. Ah! Sweet Io!"

The surgeon, visibly affected by the sufferer's tale, could but restrain his own emotion.

"Very sad," he murmured in the dying man's ear. "What did Io die of?"

A light of triumph came for one brief instant in the joker's fast dimming eyes as he answered, "Iodide of potassium," and he passed away before the startled and enraged surgeon could jump with both feet on his face.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

NO RECRUDESCENCE THIS YEAR.

If there is any value in the knowledge we have gained, both theoretically and by actual experience and observation, about the propagation of yellow fever and the effect of temperature upon it, we can feel assured that there is no danger whatever of a recrudescence of it in the United States this year. The cold has been so pronounced and far reaching that the germs have been destroyed no matter where their hiding place. Here in New Orleans, water froze in most apartments, including those that were fairly well heated, for with an outside temperature ranging for three days from freezing to twenty-five degrees below and accompanied by strong wind, the slightest little opening or seam soon allowed all the warm air to escape. Professor Metz placed as a test a registering thermometer *in a trunk* situated in the garret of his house and the instrument registered 13 deg. F. Even asbestos-covered water pipes burst, so it would seem that, had any one tried, it would have been nigh impossible to coddle a few germs through the unprecedented spell.

In view of these facts redoubled efforts should be made by our health authorities and those of adjoining States toward preventing the introduction of the disease *de novo*; the problem of a summer free from disease is simplified to the extent that this single proposition remains.

We believe that our Mississippi and our Texas friends should unite with us in securing this section against new infection instead of casting suspicious glances in our direction and preparing to exclude the disease only after it may have shown itself here, by which time it would be much more difficult to control and would already have done incalculable damage to the whole section, no matter which localities it directly invaded or spared. We must work together, not watch each other.

The possibility of danger from Northern ports must be seriously faced. We have every reason to believe that adequate precautions are not always taken and we know that a traveler accompanied by baggage packed in Havana can reach Mobile, New Orleans or Galveston in a very few days, via New York, without the knowledge of the health authorities of these places and without any possibility, consequently, of their taking necessary steps to eliminate the danger. It must be insisted upon that the same care be taken at every point, whether the latter be or not a site suitable to the development of this or that disease.

If proper efforts are made and maintained with that end in view, knowing that recrudescence is out of the question, and that we shall soon have the benefit of enlightened disinfection services by the Marine Hospital Service in Cuba, we should be able to look with confidence for a healthy summer in 1899.

THE STATE MEDICAL SOCIETY MEETING.

Elsewhere in this number the question of holding the State Society meeting at some time during the Jubilee Celebration in New Orleans is raised.

Because of precedent the president of the society is allowed to fix the date of the meeting at some other than the regular time, if there is reason therefor.

The Charity Hospital Alumni Association usually fixes its meeting at the time of the Commencement of the Medical Department of Tulane, this year falling on May 3. As this Association arranged a different program for this year, so that the meeting should occur the day before the State Medical Society meeting, this would be additional reason for the change of the date of meeting of the State Society. Besides there will be the consideration of reduced rates incident to the State Fair.

The time is short in any event, and we would make our customary admonition to the chairmen of sections, urging the arrangement of papers to facilitate an early program. This year should be particularly interesting, and the meeting should be well attended. At no other time does the medical profession

of the State have a chance to grow acquainted, and it is an obligation almost, which every medical man should feel, to support and foster medical organization.

State medical associations have drifted into a multiplicity of papers and sections, which occupy most of the available time during each session.

Organization was never completely effected without some other feature less perfunctory. The State Fair, and the idea of professional and individual recreation are both arguments for a large gathering in New Orleans this year.

Medical News Items.

AN IMPORTANT HEALTH CONFERENCE WAS HELD in New Orleans on February 9. The object of the meeting was to make certain amendments to the Atlanta regulations as adopted last year.

The meeting was quite representative, although officially, as States, only Louisiana was represented.

From Texas, the Houston Board of Health sent Dr. J. W. Scott, president; Dr. J. Lavendoce, Dr. R. T. Morris, Dr. W. M. Brumby, Dr. Hiram A. Wood.

The Galveston Board of Health—Dr. J. F. Y. Paine, Mr. J. D. Skinner.

The South Texas Medical Association—Dr. F. Stuart, Dr. J. R. Stuart, Houston; Dr. R. H. Harrison, Columbus; Dr. Frank B. King, Dr. O. L. Norsworthy.

From Mississippi, the coast towns were represented as follows: Waveland Board of Health—John A. Rawlins, Peter Helwege, L. H. Fairchild, R. Attaway, John J. Barr, Jules Mazerat.

Pass Christian Board of Health—Jas. H. Maury, L. C. Fallon, C. A. Pardue, O. L. Putnam, Wm. T. Hardie.

Bay St. Louis Board of Health—Aug. Keller, secretary.

Alabama was represented as follows:

Mobile Board of Health—Dr. Rhett Goode, city health officer.

Mobile Chamber of Commerce—A. S. Benn, president; E. E. England, secretary; H. Pillows, C. J. Clarke.

Louisiana as follows:

State Board of Health—President, Edmond Souchon, M. D.; secretary, G. Farrar Patton; Dr. R. L. Randolph and Dr. C. A. Gaudet.

New Orleans Board of Health—President, Quitman Kohnke, M. D.

New Orleans Board of Trade—Jos. Kohn, Gus. Lehman, Jr.

New Orleans Fruit and Produce Merchants—Charles Roth.

Bureau of Freight and Transportation—Ben H. Helm.

New Orleans Steamboat Exchange—Chas. P. Truslow, Geo. H. Lord.

New Iberia Board of Health—President, A. Duperrier, M. D.

St. Mary Parish Board of Health—President, C. M. Smith, M. D.; Dr. D. N. Foster.

The Railroads—Superintendent W. F. Owen, Southern Pacific.

New Orleans—J. G. Kostmayer, Dr. G. Devron and I. W. Ashner.

Mexico: Vera Cruz—Dr. J. J. Burroughs.

Marine Hospital Service—Dr. Jas. A. White, Dr. Jas. A. Nydegger.

The spirit of the meeting was in every way satisfactory and full of a desire to accomplish a common purpose.

Dr. Scott, of Houston, presided over the meeting, at which a number of resolutions and propositions were submitted.

The chief accomplishment of the meeting consisted in a resolution to the effect that quarantine should be determined by the necessity for it rather than by the occurrence of isolated cases of yellow fever; the fact that such cases were isolated and protected from spread to govern such action.

Further, certain definite amendments were made to the Atlanta regulations with particular regard to goods and materials and to disinfection; attention was given to the method of disinfecting establishments doing packing and repacking.

Dr. H. R. Carter, of the Marine Hospital Service, submitted a paper full of practical points on the Principles of Quarantine, touching upon almost every point involved.

A committee was appointed to publish the proceedings of the meeting for proper distribution.

THE MISSISSIPPI STATE BOARD OF HEALTH, at a meeting held last month, passed, among others, the following resolutions:

“1. That a representative of the Mississippi State Board of

Health, accompanied by a representative of the Louisiana Board of Health, be permitted to make a house-to-house inspection of such localities in the city of New Orleans and at such times as may be indicated by said representative of the Mississippi Board.

“ 2. That a representative of the Mississippi State Board of Health be permitted to see all cases of sickness which may be reported as suspicious by any local physicians of New Orleans.

“ 3. That a representative of the Mississippi State Board of Health be permitted to visit all hospitals in the city of New Orleans at such times as said representative may elect. Arrangements for these visits must be made for the season, so that the representative will not have to secure special permission at each visit.

“ Resolved, That it is the sense of this board that a case of localized yellow fever in a city, said case or cases being in complete isolation and in charge of the health authorities, would not be sufficient cause for alarm or quarantining a city, but that the health and lives of the people of Mississippi may be protected they must have, through their constituted health authorities, prompt and full information relative to the health conditions in New Orleans, and with this information the board will be prepared to act in such way as to protect the State and at the same time not necessarily obstruct commerce.

“ Resolved, That municipalities where yellow fever prevailed last year are hereby advised and urged to see that the contents of all houses that were infected or suspected of infection are thoroughly aerated during cold, clear weather where such aeration has not been practised.

“ The chief health officers in counties where yellow fever prevailed are hereby instructed to see that this work is thoroughly done, both in rural districts and municipalities.

“ To make it effective, all trunks, drawers, closets or any other place where textile fabrics are contained should be opened up and the contents thoroughly exposed to sunshine and air.”

The board announced that the examination for medical license in Mississippi would be held on the second Tuesday in May.

NAMES FOR APPOINTMENT on the Board of Louisiana State Medical Examiners were selected at a special meeting of the State Medical Society called for that purpose by the president, in this city, February 13. Dr. G. A. B. Hays presided, and Drs. Felix Larue and J. A. Storek, of New Orleans, were chosen for submission to the Governor for Dr. Kennedy's place, while Drs. T. G. Ford, of Shreveport, and F. M. Thornhill, of Acadia, were nominated as eligible for the succession to Dr. Egan's place.

THE ANNUAL MEETING OF THE WESTERN OPHTHALMOLOGIC AND OTO-LARYNGOLOGIC ASSOCIATION was held in New Orleans, February 10 and 11. Owing to the unavoidable absence of the president, Dr. J. Elliott Colburn, of Chicago, the first vice president, Dr. W. Scheppegrell, of New Orleans, presided. Two joint sessions and three sessions of the Ophthalmologic and Oto-Laryngologic sections, respectively, were held, and many important papers read and discussed.

The following officers were elected for the ensuing year: Dr. W. Scheppegrell, of New Orleans, president; Dr. M. A. Goldstein, of St. Louis, first vice president; Dr. H. V. Würdemann, of Milwaukee, second vice president; Dr. E. C. Ellett, of Memphis, third vice president; Dr. F. C. Ewing, of St. Louis, secretary; Dr. W. L. Dayton, of Lincoln, Nebraska, treasurer.

St. Louis was selected for the next annual meeting.

THE PROPOSED SEWERAGE AND DRAINAGE MEASURES FOR NEW ORLEANS have been endorsed by the Orleans Parish Medical Society as follows:

"Whereas, the Orleans Parish Medical Society has, by resolutions, endorsed and approved the proposition to establish an efficient system of sewerage, drainage and water supply under municipal ownership and control; therefore be it

resolved, That this society, recognizing the great advantages to be derived from the accomplishment of this work, express to the city authorities its endorsement and support of the proposed measure."

THE SAMUEL D. GROSS PRIZE.—The second quinquennial prize of one thousand dollars under the will of the late Samuel D. Gross, M. D., will be awarded January 1, 1900. The conditions annexed by the testator are that the prize "shall be awarded

every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the successful competitor, who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut street, Philadelphia, before January 1, 1900.

Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

AT THE ANNUAL MEETING OF THE TRI-STATE MEDICAL ASSOCIATION of Mississippi, Arkansas and Tennessee, held in Memphis, the following resolutions were adopted:

"Whereas, the medical laws of the various States have been so perverted by political influences as to give legislative sanction to grotesque, ignorant and dangerous sects of pretenders and charlatans; and

"Whereas, the privileges granted to one of the most outrageous aberrations, namely, the so-called Osteopathy, constitute a disgrace to the States in which the "osteopathists" are legally entrenched; and

"Whereas, a certain William Smith, osteopathist, having been roundly denounced, together with his sect, by Parke, Davis & Co. and the *Medical Age*, now brings suit against both for \$25,000 damages; therefore

"Be it declared the sentiment of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, that Parke, Davis & Co. and the *Medical Age* are entitled to the sympathy of its members and of all medical practitioners; that we wish and expect them to enjoy a complete triumph in repelling this legal

assault; and that wheresoever a powerful house takes a bold stand in opposition to quackery it promotes the interests of legitimate and honorable medicine and the welfare of humanity.”

THE ANNUAL MEETING OF THE ALUMNI ASSOCIATION OF TULANE UNIVERSITY of Louisiana was held on February 11, 1899, at Tulane Hall in New Orleans. Addresses were delivered, reports of the officers and committees read, and the election of the executive committee occurred.

AT A MEETING OF THE LOUISIANA STATE DENTAL SOCIETY, held on February 11, the following officers and committees were elected:

President, Dr. L. D. Archinard, of this city; Dr. C. Ratzburg, first vice president; Dr. Wallace Wood, Jr., of this city, second vice president; Dr. R. H. Welch, recording secretary; Dr. A. L. Brewster, corresponding secretary, and Dr. Jules J. Sarrazin, of New Orleans, treasurer.

The executive committee is as follows: Dr. Joseph Bauer, chairman; Drs. Chas. Mermilliod, Sr., J. Rollo Knapp, C. Ratzburg and T. McComegys.

Recommended for Board of Dental Examiners—Dr. C. V. Vignes, president; Drs. Wallace Wood, Jr., C. B. Johnston and Charles Mermilliod, Jr., who were subsequently, with Dr. R. L. Zelenka, appointed by the Governor.

MARRIED.—On Thursday, February 16, Dr. Thomas J. Buffington and Miss Fannie Conrad, of Baton Rouge, were united in marriage at the Hotel Royal, in New Orleans, where they spent some days. Dr. Buffington is well known in the State, and the JOURNAL felicitates him and his bride.

DR. GEO. H. ROHÉ, of Baltimore, died suddenly in New Orleans on the night of February 6. He had come to New Orleans for his health, which had not been of the best for some time. His stay had already been of much pleasure to the local profession, when his sudden death occurred from heart failure. Dr. Rohé has been prominently connected with medical literature and medical education in Baltimore, where he was esti-

mated at his full professional value. He had made many friends in New Orleans at previous visits, so that his demise has been keenly felt here.

DR. SAMUEL F. MEEKER died February 12, aged 63 years, having been born in West Feliciana parish in 1836. He graduated from Oaklawn College, Mississippi, in 1856, receiving his degree of doctor of medicine from the University of Louisiana in 1859. He located in Rapides parish in 1860, and served in the Confederate army from 1861 to 1865, being part of that time surgeon on General Hayes' staff. He represented Rapides parish for twelve years in the Legislature, always taking a deep interest in matters medical considered by that body. The JOURNAL extends sympathy to relatives and friends of the deceased.

DR. T. J. ALLEN, one of the oldest citizens and physicians of Shreveport, died in that city on February 17 in the sixty-ninth year of his age. His loss is much regretted by his community.

THE WESTERN CLINICAL RECORDER is the title of a new periodical to appear monthly in Chicago under the editorship of Drs. Fred. Jenner Hodges and William T. Rinehart. The first number of the first volume is quite attractively presented, with a list of clinical articles contained, all of which are practical and succinct. The type and arrangement of matter is excellent.

INFRINGEMENT ON NEUROSINE.—A professed pharmaceutical house of Paris, France, has caused to be circulated in this country a product under the name of *Neurosine Prunier*, perhaps hoping to reap the benefit of the well-known Neurosine manufactured by the Dios Chemical Company of St. Louis. The importers of this Paris house have agreed to discontinue distributing and at once call in all this product on the market. Physicians reporting to the Dios Chemical Company any attempt to substitute will aid in stopping this nefarious business.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

ACUTE FORMS OF TUBERCULAR PERITONITIS.—M. Lejars in *Progrès Médical* of December 17, 1898, treats of the certain forms of acute tubercular peritonitis, whose sudden onset reminds one of occlusion or appendicitis. These facts are very interesting from a diagnostic and therapeutic point of view. Furthermore occlusion is a complication which is quite frequently met with in cases of classic tubercular peritonitis of the chronic form; but then it is the result of some mechanical obstruction formed either by a constricting band or adhesions. M. Lejars has seen a patient with coxalgia suddenly seized with occlusion, the jejunum being found encircled by a band, which was severed. But in certain cases, although all the symptoms of occlusion exist, surgical intervention reveals no mechanical obstacles; but a few tubercular granulations are most often found with some turbid serum; ordinarily the symptoms of occlusion disappear and the intestinal contents again resume their normal course. M. Lejars thinks such cases ought to be classified in the group of paralytic pseudo-occlusions. It is with appendicitis that the error is most frequently made; and really the resemblance between appendicitis and certain forms of tubercular peritonitis is sometimes so great that a differential diagnosis is almost impossible. Good results follow operation in such cases; the accidents of occlusion disappearing after the iliac or median incision. Such rapid improvement, lasting long enough sometimes to cause a complete cure, is not easily accounted for. The practical conclusion of this discussion is that surgery brings great relief, and often complete cure in some cases of acute tubercular peritonitis.

HEMATIC CYST OF THE SPLEEN, CONTAINING ABOUT TEN LITRES OF LIQUID.—M. Heurtaux, of Nantes, in the *Revue de Chirurgie*

of December 10, 1898, reported a case of a young girl, aged 27 years, who noticed seven years ago, one year subsequent to a fall on her back, a painless tumor, in her left flank, the size of the fist. This tumor had grown progressively since then, without any alteration in her general condition. M. Heurtaux saw her for the first time in April, 1896, and found at that time a visible fluctuating tumor, occupying the left three-quarters of the abdominal cavity. Considering the origin and the development of the tumor, he made the diagnosis of a probable splenic cyst, and performed median laparotomy on April 20, 1896.

He discovered an enormous cyst, adherent on all sides, penetrating the chest on the right side, elevating the diaphragm, and containing nine and a half litres of disorganized blood. The cyst was cleansed and packed and the patient recovered.

M. Heurtaux calls to mind the great scarcity of hematic cysts of the spleen. He has only found three cases in medical literature. From an etiologic standpoint traumatism is quite an important factor.

A NEW PROCEDURE FOR THE RADICAL CURE OF INGUINAL HERNIA WITHOUT LOST THREADS.—Thomas Jonnescu, of Bucharest, describes in the *Centrbl. für Chir.*, for January 21, 1899, his latest operation for inguinal hernia. The main object of the operation is, whilst suturing for radical cure, to manipulate the cord in such a way as to permit the placing of the sutures, which may be removed after healing of the wound, so that nothing is left behind.

Since, then, the essential part of the operation is the placing of the sutures, this feature alone will be dwelt upon. He uses silver wire put through with a curved Emmet needle. Three mattress sutures are placed so that the loop of each lies on the upper lip of the wound, the free ends on the lower, passing through all the layers down to the transversalis fascia, excepting the middle suture of the three, which includes also the peritoneum. When the two free ends of each of the three wires are now drawn tightly the lips of all the layers are brought into apposition. The forceps which were put on the peritoneum in order to keep it closed are not removed until the middle wire has been well tightened so as to insure the safe closure of the cavity without

the risk of pinching a coil of intestine. The skin edges are closed by superficial sutures.

Jonnescu followed this plan in sixteen cases with satisfaction, but he has for the past year modified it somewhat so as to make the procedure still less devoid of risk of recurrence. In this operation he employs two layers of suture instead of one as in that just described.

The deep layer is thus applied: Beginning at the lower end of the wound, the needle, armed with a medium-sized wire, is passed through the lower lip, the layers picked up separately, skin, ligament and conjoined tendon, thence across (avoiding the transversalis fascia and peritoneum) to the upper lip, where the conjoined tendon is pierced 1 *cm.* from its free edge; here the needle is again threaded and carried back in the reverse direction and brought out on the surface of the skin 1½ *cm.* from the other end. This wire then embraces all the layers of the lower lip, but only the conjoined tendon of the upper lip. In the same way two other mattress sutures are placed about 2 *cm.* apart, the width of the U being about 1½ *cm.* The third or middle one catches the peritoneum as it passes across. The superficial layer of sutures is now passed as follows: Beginning *above*, the needle is entered through the lower lip 1 *cm.* nearer the edge than the deep suture already placed, passes through the skin, aponeurosis, oblique and transversalis of the outer edge, thence across to the upper lip, which it passes through in the reverse order until it emerges on the surface of the skin about 3 *cm.* from the edge; the end is then brought back through the whole thickness of the wound except the transversalis fascia and peritoneum, emerging on the skin just 2 *cm.* below the other end of the wire. Two other sutures are passed in a similar way, separated 2 *cm.* The middle wire of this layer does not as in the case of the deep layer pierce the peritoneum. The closure of the wound is accomplished by drawing on the deep wires first until the depths of the wound are approximated, then twisting the wires over a bundle of gauze; the superficial sutures are then drawn up and the ends likewise fastened over the same gauze bundles about 1 *cm.* nearer the lip of the wound. Finally the edges of the skin are brought together with superficial sutures. In making provision for the cord's exit from the abdomen into the scrotum it is brought out close to the crest of

the pubis, care being taken not to press it too tightly against that bone. The two rings are thus brought close together just above the pubis, permitting the accurate and complete approximation of the whole abdominal wall.

The first mentioned procedure was described in detail, with illustrations, in the Inaugural Dissertation of Jonnescu's pupil, Leon Henic, in *Revista de Chirurgie*, Bd. I. No. 6, p. 241, as well as in a communication made by him to the Moscow Congress in August, 1897. The method was first actually carried by him on February 11, 1897. Jonnescu had already described in the *Centrbl. für Chir.*, No. 12, 1897, his method for completely closing the canal by buried suture, the cord being displaced backward into the peritoneal cavity as in his later operations now given. Fowler had detailed a similar method in a paper read before the Moscow Congress and published in the *Annals of Surgery* for 1897, p. 603. This was in all essential particulars the same as that of Jonnescu, but neither does Fowler mention Jonnescu in his article, nor does Jonnescu refer to Fowler in any of his several papers on this subject. So it is fair to assume that they each had worked out the method independently. Jonnescu's last operation described above was first done on January 17, 1898. So far as the writer can discover, the plan of placing the sutures is original with Jonnescu. It seems to be worthy of a trial by surgeons, being simple and quite effective in bringing homologous tissue layers together and permitting the removal of the wires when they shall have served their purpose. Kangaroo tendon has, however, given such satisfaction as a buried suture that we venture to say that this method of Jonnescu will never do away entirely with the methods involving anterior displacement of the cord.

Department of Obstetrics and Gynecology.

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

THE TREATMENT OF EXTRA-UTERINE GESTATION.—P. Second (*Annales de Gynécologie*) states that every case of extra-uterine gestation, once recognized, demands surgical interference.

Spontaneous cures sometimes occur, but are very rare. Treatment by electricity, morphia and strychnin injections, or simple puncture of the sac, is no longer considered scientific and is now merely of historic value. Cases diagnosed before primary rupture of the sac are best treated by immediate laparotomy. Treatment by anterior or posterior colpotomy is possible in such cases, but it is inferior to abdominal section if the opposite appendage is normal. If the opposite appendage is diseased, vaginal hysterectomy, with bilateral removal of both appendages, is indicated.

In treating cases in which hematosalpinx is present as a complication, abdominal section is preferred. The tube, if ruptured, can then be removed, or if it is found to be a tubal mole or a tubal abortion, it can be incised, cleaned and sutured. Few cases will be found suitable for this method, however. Cases of encysted hematocele were treated on the expectant plan until recent years. It has been found that absorption of the mass is too slow and that infection is too frequently a complication to trust to nature in such cases. In certain small hematoceles, which have a tendency to spontaneous cure, no interference is justifiable; all others demand surgical intervention. Segond strongly advises vaginal colpotomy in such instances. He admits that it is difficult to ascertain the source of hemorrhage or completely clean the sac by vaginal section, but claims that such points are not essential to cure. If hematocele in which several hemorrhages have occurred is encountered, abdominal section is the best treatment.

Septic and suppurative complications, if internal and limited, are easily treated per vaginam. If the case is of *more* than four months' duration and the fetus is *alive* it may be justifiable to wait until the child is viable (seventh month), if the woman can be kept under close observation and no further complication arise. Abdominal section is the only treatment in such cases. In dealing with the placenta it is admitted that it should be allowed to remain and the fetus sac walls be treated extra-peritonically by suture to abdominal walls. If enucleation of the sac is simple, however; if the placenta is partially detached or bleeding, or in cases where no sac is present and the child is lying free, the placenta should be removed at the time of operation.

If the fetus is *dead* it is well to postpone operation a few

weeks until circulation is more or less obliterated unless hemorrhage is occurring.

THE ACTION OF QUININ UPON THE UTERINE FIBRES has been a much discussed question, says W. J. White (*Peoria Medical Journal*). It may be considered under three heads: (1) Does it produce abortion when administered to pregnant women suffering from malaria? (2) Does it produce abortion in a healthy woman? (3) What is the evidence in regard to the action of quinin during labor.

Investigations by Southern physicians seem to show that abortion is not especially common in malarial subjects, and that it is quite as likely to occur where no quinin has been given. Some even go so far as to state that the administration of quinin will arrest a threatened abortion due to malaria. The conclusions in regard to the second question are even more unanimous in affirming that quinin has no effect upon a healthy woman.

Dr. A. H. Smith, of Philadelphia, believes the drug acts as a powerful tonic to the general nervous system, and attributes its stimulating effect on labor pain to this cause; but others claim a specific effect upon the uterine muscle. In thirty consecutive cases in the writer's experience the result of the administration of quinin has been more rapid delivery by regular and forceful pains which something has benumbed, and it would seem that the quinin possessed a slight analgesic power. The placenta is usually delivered quicker and there is less hemorrhage than when ergot is given. Indeed, the writer has substituted quinin for ergot in all cases. It is not claimed that quinin will always be as constant or satisfactory in its action, but as a powerful uterine stimulant, especially in cases of inertia, or cessation of the pains altogether, it acts in a decided and most efficacious manner and is deserving of a thorough trial.—*American Gynecological and Obstetrical Journal*.

RUPTURE OF THE UTERUS.—Mayo Robson says that although the practitioner is accustomed to be brought face to face with trying and anxious complications of various kinds, needing great presence of mind and prompt interference, there is no more formidable accident needing a decided line of treatment than that of rupture of the uterus. In cases of rupture before delivery, where the child escapes into the abdomen, nothing but

immediate abdominal section offers any chance of saving the patient. Shock and hemorrhage are both progressive, and delay of even half an hour may render operation hopeless. Few practitioners realize how few special instruments are actually necessary to perform hysterectomy under such circumstances. While the patient's abdomen is being prepared and the arrangements made, a skein of silk or thread, a piece of baby-bottle tubing, a knitting needle and the instruments which an obstetrician will always have with him, viz.: knife and artery or pressure forceps, can be prepared. Several handkerchiefs or napkins can be boiled and used as sponges.

After opening the abdomen the ruptured uterus is drawn forward, and the elastic tubing is tied around it, either above or below the ovaries, according to the site of rupture, to control bleeding. A few stitches should be passed through the ends of the tubing to prevent slipping, the knitting needle is then pushed through the uterus just above the ligature and the portion beyond it can be amputated. The fetus and placenta, if free in peritoneum, can then be extracted through the abdominal wall, the cavity flushed with salt solution and the abdomen closed with sutures of boiled thread. There is a class of cases in which the rupture takes place in the lower uterine segment at the time of delivery, and is probably only noticed afterward when hemorrhage and increasing shock draw attention to something abnormal. There is more time for deliberation in such cases, as the shock is not immediate and hemorrhage is not so violent as to produce immediate collapse. A simple vaginal examination may not discover such ruptures, as the lower segment of the cervix is not necessarily torn; but if the finger be passed within the patulous os, the rent in the uterus will be felt and the symptoms understood.

It is questionable whether hysterectomy is the better operation in such instances. In two cases related the operation was followed by death on the table. The only cases Robson had seen recover were those in which packing with iodoform gauze had been done. A case is related which was treated in this manner with satisfactory results. Robson advises that packages of sterile gauze should always be kept ready for emergencies, even if only to be used for first aid until a subsequent operation under more perfect conditions can be performed.—

The Practitioner.

Department of General Medicine.

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

A CONTRIBUTION TO THE STUDY OF THE PROGENY OF URNINGS. Dr. Chas. Féré (*Archives de Neurologie*, 1898) reports two observations. The first case is that of a male homo-sexual individual or urning, who always abstained from his sexual desires and inclinations. He finally married after repeated hesitations on his part, and became the father of one male epileptic imbecile, two male idiotics and one girl who died of convulsions at the age of six months. These four children were the result of a little over four intercourses he ever had with his wife. Aside from the psychic inversion of the father there is no blemish in the family which can account for the degeneracy of these four children.

The second case is that of an inverted female who also abstained from her sexual inclinations. She was long in consenting to marry, which she finally did at the age of 26 years. She had three girls. One died of convulsions during early infancy. The second committed suicide when one of her friends married. The third is still living, but she is at times absent-minded and suffers from fits of melancholy of the epileptic type. Dr. Féré remarks that congenital inversion is beyond the province of medicine; the attempts made to force inverted individuals in normal sexual life only result in actual perversion or in a most unhappy life from their own anomaly and from their progeny's condition. It is, therefore, better as regards those inverted individuals who are continent to let them remain in their continency. It is just because they are degenerates, and, therefore, subject to leave a pathologic progeny, that they must be kept out of the bonds of matrimony.—*Gaz. Hebd.*, January 8, 1899.

TREATMENT OF ASTHMA WITH ATROPIN.—In the *Bulletin Médical*, Dr. Kuss recently described the treatment of asthma with atropin, as Trousseau prescribed it and as Von Noorden recommended it at the late Congress of Düsseldorf. The

following is the well-known method of Trousseau: During ten days, every month, the patient takes one, two, then four pills of belladonna (extract of belladonna and powder of the root belladonna, ââ one centigramme) or one, two, and even four granules of atropin, each of one milligramme. During the balance of the month, the patient is ordered to use turpentine, arsenic cigarettes, and cinchona. Von Noorden's process is somewhat different. He commences by a daily dose of half a milligramme of atropin; every second or third day he increases the dose by half a milligramme, until the dose of four milligrammes a day is reached.

After some time the daily dose is gradually diminished. The duration of this treatment with atropin must at first in general cover at least one month or one month and a half. But after a rest of six months the atropin treatment must be recommenced, this time for a shorter period and with smaller doses.

It is seen that Von Noorden uses atropin at a higher dosage than Trousseau, since in six weeks his patient takes more than ten centigrammes of atropin, while after Trousseau's method, the patient takes at most five centigrammes in two months, if the granules of atropin are used and only about one centigramme and a half where belladonna pills are given, which is usually the case. The high doses adopted by Von Noorden were always wonderfully tolerated by his patients.

Of course, there were some slight disturbance of accommodation and a trifling dryness of the throat, but aside from that there were no secondary ill effects. It must be noted in particular that the pulse-beat remained normal. However, it is safe to watch these patients very carefully during all the course of the treatment. Von Noorden even goes so far as to recommend treating such cases, if possible, in a sanitarium, in order to be able to carry out most carefully not only the medicinal part of the treatment but also that part relative to the moral hygiene and alimentary régime, a most important matter for subjects suffering from asthma.—*L'Abeille Médicale*, December 17, 1898

Department of Therapeutics.

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

TREATMENT OF COUGHS WITH HEROIN.—Morris Menges, in the *New York Medical Journal*, of November 26, 1898, gives his experience with this drug. He quotes Dreser and Floret. The former has studied the effect of this drug and finds it ten times as powerful as codein in slowing the respiration.

He found that not only were the respirations lessened, but that the volume of each inspiration was greatly increased; therefore the quieting of the cough was not due to a lessening of the expectorating power. Floret found the drug exceptionally useful in allaying coughs and pains in the chest in both acute and chronic catarrhal inflammation of the respiratory tract. He stated that out of sixty cases treated this annoying cough was promptly relieved. Out of twenty-five cases of pulmonary tuberculosis relief was obtained in twenty-one. There were no unpleasant after-effects. On the whole, Menges agrees with many of Floret's statements, but in his cases a few showed disagreeable after-effects, but these were milder and less frequent than after either morphin or codein. A number of cases of asthma were relieved. The results obtained in tuberculosis patients were by no means constant, but in some they were very favorable. A mild antipyretic action was noted in some cases. As a general analgesic heroin has proved to be absolutely useless in ordinary doses. Heroin is a white crystalline powder, slightly soluble in water; a solution, however, may be obtained by adding a few drops of acetic acid. It may be dispensed in powders rubbed up with sugar. The dose is from one-twelfth to one-sixth of a grain.—*Medicine*.

ARTIFICIAL FEEDING OF INFANTS.—W. B. Cheadle: "Artificial Feeding and Food Disorders of Infants." The six essential conditions to be observed in the diet of infants are these:

I. The food must contain the different elements in the proportions which obtain in human milk, viz. (taking the mean

between the two analyses of Gorup-Besanez and Payen, and discarding small fractions):

Proteid	3.5 per cent.
Fat	3 " "
Carbohydrate	4 " "
Salts	0.2 " "

with water 85 to 90 per cent. for the first few months of life.

II. It must possess the anti-scorbutic element.

III. The total quantity in twenty-four hours must be such as to represent the nutritive value of 1 to 3 pints of human milk, according to age, viz.:

Proteid.....	377 to 1,131 grains.
Fat.....	256 to 768 " "
Carbohydrate.....	419 to 1,257 " "

IV. It must not be purely vegetable, but must contain a large proportion of animal matter.

V. It must be in a form suited to the physiologic condition of the digestive function in infancy.

VI. It must be fresh and sound, free from all taint of sourness or decomposition.—*The Practitioner*.

A POWERFUL DISINFECTANT.—Krönig and Paul, in a recent issue of the *Philadelphia Polyclinic*, claim to have discovered a most powerful disinfectant in a mixture of potassium permanganate and hydrochloric acid. This solution kills the most resistant spores from extremely virulent anthrax bacilli in a few minutes, while it is cheap, non-toxic, convenient, and fully equal to a 5 per cent. solution of sublimate. As a disinfectant for the hands they recommend the formula: 45 *c. c.* of pure hydrochloric acid: diluted with 1600 *c. c.* of water; add 500 *c. c.* of a 5 per cent. solution of potassium permanganate. The solution stains the skin, but the stain is easily removed with a 1.3 per cent. solution of oxalic acid.—*Medicine*.

A PRESCRIPTION FOR AORTIC PALPITATION.—We find the following in the *Clinica Moderna*, for November 23:

℞ Quinin hydrobromide	60 grains.
Powdered digitalis.....	} each 30 grains.
Extract of convallaria.....	

M. Divide into forty pills.

From two to four to be taken in the course of twenty-four hours.—*N. Y. Med. Jour.*

THE TREATMENT OF TRIGEMINAL NEURALGIA.—The *Wiener Medicinische Presse* for December 4 (*Klinischtherapeutische Wochenschrift*, December 11) attributes the following formula to Hirschkron:

℞ Phenacetin, antipyrin.....each 45 grains.
 Quinin sulphate.....15 grains.
 M. Divide into six powders. One or two to be taken daily.
 —*N. Y. Med. Jour.*

CHRONIC BRONCHITIS AND WINTER COUGH:

Pure benzin..... $\frac{1}{2}$ fl. dr.
 Peppermint oil..... $\frac{1}{2}$ dr.
 Olive oil.....to make 2 fl. oz.
 10 to 30 drops on lump of sugar every three or hours.

—*Louisville Med. Monthly.*

Miscellaneous.

CREMATION IN JAPAN.—In the last number of the *Sei-I-Kwai*, Dr. Y. Wada relates very interestingly an account of this subject.

In Tokio alone there are seven places for cremation. In that city there has been an increase steadily, for ten years past, in this method of disposal of the dead. In 1888, there were 34 per cent. of the dead cremated; 1889, 34 per cent.; 1890, 41 per cent.; 1891, 36 per cent.; 1892, 41 per cent.; 1893, 36 per cent.; 1894, 37 per cent.; 1895, 39 per cent.; 1896, 38 per cent. 1897, 40 per cent.; 1898, 42.43 per cent.

Most of the crematories are under the control of one company and all are much alike in construction. Inside the gate of entrance there is a mortuary chapel with a statue of Buddha in the corner. There are thirty-two furnaces in two buildings, divided into first, second and third classes. All are built of brick, with a double iron door in front. Inside each furnace an iron frame is spread, on which the coffin is to stand; underneath there is room to kindle fire.

The price of cremation is fixed, adults being charged about \$8, first class; \$3.50, second class; \$2, third class; children being charged about two-thirds this rate.

Although a difference is made in the price, the burning is done separately and privately in each class, the only difference being in the embellishments of the apartment and the service of constant attendants in the first and second class.

The nearest relative, after paying the fees, seals the door to the furnace and goes home, returning the next day for the remains. The attendants ignite the fuel, through a hole in the roof of the furnace. The time consumed in burning a corpse is from three to five hours. The author dissertates upon disease and occupation affecting the time needed. He particularly indicates that laboring men, phthisics, those who die of heart disease, etc., burn slowly. Those who died of apoplexy, cholera, pregnancy, drowning, rank next.

The fuel necessary to burn a corpse in the sitting posture is fifteen logs of pine wood (six inches in diameter), or thirty if the corpse is burnt reclining. Apparently the process of incineration is not complete in these places, as in most instances the bones are left: while the author specially comments upon the fact that sometimes a fatty man is so well burned that nothing is left!

Cremation is not new in Japan, dating back as it does to the time of Emperor Jito. Its practice, however, has been known and followed since 1860. At first, under the direction of Buddhist priests, cremation was crudely done in the field, where stones were arranged for the oven and straw used for fuel.

In 1870 a building was devised. Gradually the extortion and the habit of stripping the dead led to more improved custom. It is stated that the burners formerly sold the ashes of those cremated to persons having belief in their usefulness in certain diseases.

HETOL AND HETOKRESOL.—Prof. Albert Landerer, chief surgeon at the Karl-Olga-Krankenhaus, in Stuttgart, speaks in a monograph very highly of the derivatives of cinnamic-acid in the treatment of tuberculosis. Especially of hetol, or cinnamic-acid-sodium and hetokresol, which is the commercial name for cinnamyl metakresol. The latter is a white, crystalline powder insoluble in water, oil and glycerin, but readily soluble in ether. It is unsterilizable, for at 100 deg. C. = 212 deg. F. it melts into a yellowish, smeary mass, even if one tries to sterilize it in an aqueous solution.

On a newly curretted tuberculous wound it has a decidedly favorable effect, though moderately astringent.

The freshly curretted wounds remain first rather dry after having been treated with hetokresol. At the end of the first week the wound is covered with an easily bleeding granulation of a bright red color. This granulation shows no edematous spots or nodules, and, on the contrary, shows all the signs of a thorough, normal, powerful, healthy granulation, without the slightest tubercular character. The wound has to be touched rather frequently with lunar caustic, and then it heals rapidly, like a normal wound, leaving a slight scar.

Hetokresol is powdered directly on the wound and diffused over it with an ordinary powder-blower, or it can be spread by an atomizer in an ethereal solution (1:10 to 1:20). A very thin layer is sufficient. As, however, the antiseptic power of hetokresol is but a small one, it is not safe to use it alone in deep wounds susceptible of infection, for instance in open articular cavities. Landerer has therefore tried to use at the first dressing a mixture of two parts of hetokresol and one part of iodoform, or of one part of iodol.

Unfortunately, hetokresol can not be said to be a thoroughly non-toxic substance. In a certain case where many granulation surfaces had to be powdered with hetokresol, headache, lassitude, increase of temperature and anorexia, amounting to nausea and vomiting, has been observed. A few other similar cases are on record. The phenomena in all those cases resemble closely those which were observed when phenol had been absorbed as in the past, when carbol-antiseptis was the order of the day.

Now the proof that in the treatment with hetokresol a large quantity of cinnamic acid is absorbed is shown by the counting of the leucocytes. When these show too high quantities, hetokresol may be for a time replaced by balsam of Peru.

The efficacy of hetokresol on tubercular processes has been shown by intravenous injections of a hetokresol emulsion in cases of experimental tuberculosis with rabbits. The carefully watched healing process proved to be almost the same as in injections with an aqueous solution of cinnamic-acid-sodium. The development of young connective tissue formation was perhaps rather more marked.

Professor Landerer has avoided as much as possible typical resections, chiefly for the reason that spare articulations heal surprisingly well under cinnamic acid treatment, and he has restricted himself chiefly to atypical resections, *i. e.* to cases where more or less radical scrapings were indicated. It goes without saying that intravenous hetol injections may very well take place together with a typical treatment with iodoform injections.

Dr. Landerer dwells on the necessity of being very careful and punctual in the treatment of all fistulous processes. He changes the dressings every second day; they are to be carefully syringed, the antiseptic dressing must be in exact position and all infection must be avoided.

IN A REPORT OF SEVENTY-EIGHT CASES OF PULMONARY TUBERCULOSIS TREATED WITH WATERY EXTRACT OF TUBERCLE BACILLI, Dr. Karl von Ruck, giving due credit to the advantages of the favorable climate of the Asheville plateau as well as to the hygienic and dietetic methods in a special institution, shows by his results the unmistakable favorable influence of this preparation.

Experiments upon animals have shown that the injection of dead tubercle bacilli produce both curative and immunizing effects, but have always produced abscesses at the point of injection and often spurious tubercle in the animals experimented upon, conditions which seemed to preclude their use in the treatment of human tuberculosis.

A solution of the tubercle bacilli without injury to the curative proteids was therefore naturally sought for, and in April, 1897, Professor Koch announced that he had accomplished this in the production of tuberculin R., which was then given to the profession.

Several weeks later Dr. Von Ruck announced his success in also making the desired solution. The tubercle bacilli are filtered out of the rapidly growing and highly virulent culture. After washing with distilled water for the removal of the remains of the culture fluid, they are dried in a vacuum desiccator. Next, they are powdered in an agate mortar and extracted with sulphuric ether to remove the fats. They are again dried and powdered and their further extraction takes place in steril-

ized distilled water over a water bath with a temperature of 120 deg. F. The proteids becoming dissolved, the fluid is decanted and filtered through porcelain, when finally the amount of proteids is determined and the preparation standardized to a certain per cent.

Koch's claim that in a true solution of the tubercle bacilli the final perfection of a specific remedy was attained, would appear to be verified by the results which Dr. von Ruck reports.

He treated with his Watery Extract twenty cases in the early stages, all of which recovered, with an average gain of eleven pounds in weight and subsidence of all symptoms.

Of 37 cases in a more advanced stage 27 recovered, 7 were greatly improved, 3 improved and none grew worse, gaining on an average nearly thirteen pounds each.

Twenty-one cases in a seriously advanced stage were also treated, of which 3 recovered, 9 were greatly improved, 7 were improved, only 2 grew worse or died, there being an average gain of 10½ pounds each.

Comparing his previous results with those obtained with the watery extract in von Ruck's institution he shows the results as follows:

	Cases.	Recovered. per cent.	Improved. per cent.
Treated without Specific Remedies.....	816	12.1	31.0
Treated with Koch's original Tuberculin.....	379	35.5	37.5
Treated with Antiphthisin and Tuberculocidin	182	32.5	46.8
Treated with Tuberculinum Purificatum (von Ruck).....	166	43.4	39.2
Treated with Watery Extract of Tubercle Bacilli (von Ruck).....	78	64.1	33.3

Full directions are given for the use of the Watery Extract, the beginning dose being 1-1000 of a milligram, and this is gradually increased to 5 milligrams. There are three solutions, No. 1 containing 1-100 of 1 per cent., No. 2, 1-10 of 1 per cent., and No. 100 containing 1 per cent. of the anhydrous extracts.

—*Therapeutic Gazette.*

PROTARGOL IN ACUTE CATARRH OF THE CONJUNCTIVA (*I Morgagni*, July, 1898).—Dr. Cipriani has had occasion to observe in several rural districts an epidemic of acute, edematous catarrh of the conjunctiva. Women and children were for the greater part the victims, but also such persons who worked in

a smoky, dusty atmosphere, sparingly illuminated. The symptoms were swollen eyelids and occlusion of the eyelid-fissure. In the beginning liquid and later on muco-purulent secretion. Round the cornea, hard, reddish nodules, swelling of the parotids, of the pre-auricular and cervical glands, and last, not least, a marked contagion tendency. Very rarely the cornea was affected.

Formerly Cipriani treated these cases with silver nitrate, or sublimate. In the above mentioned last *epidemic* he used protargol in the form of instillations (twice daily) of a 5 per cent. solution and during the regressive stage of the affection a 5 per cent. protargol-salve. Cipriani prefers this mode of treatment, with regard to the former one with arg. nitrate and sublimate, because the affection lost a good deal of painfulness, in fact pain was almost nil, and because the duration of the disease proved to be shorter.

CONTRIBUTION TO THE THYREÖIDIN TREATMENT IN CASES OF CHRONIC CATARRHS OF THE TYMPANUM CAVITY.—Hermann, of Kiel (in the *Deutsche Medizinische Wochenschrift*, September 4, 1898), speaking of the modern and especially surgical treatment of diseases of the ear, is of the opinion that a greater success would, for instance, result in the treatment of chronic catarrhs of the tympanum cavity (the *crux* of the aurists), if the treating physician would remain more in touch with the internal medicine branch of our art. He furnishes five histories of cases, as an illustration, in which the different stages of middle-ear catarrhs, from the simple chronic one to that of typical scleroses, are described. All five patients have been for several years, and some of them more than ten years, treated by aurists, without any lasting result. Not in one of them. By careful observation Hermann has come to the conclusion that the condition of all these patients was depending upon a simultaneously existing general affection, and the atriatic treatment could not have had any good results, because said general affection had been totally ignored. All these patients, namely, were suffering from circulatory, or from digestive disturbances, indicating the development of arterio-sclerosis. The author is therefore of the opinion that in many cases middle-ear catarrhs could be traced to sclerotic changes and that by combating the perturbations of

the circulation, which, as we know, can lead to arterio-sclerosis, the middle-ear catarrhs would be efficaciously dealt with. The last assertion found its practical confirmation in the above five cases, because a general treatment directed especially against the circulation—and digestive apparatus—disturbances produced complete recovery in two cases and a very great amelioration of the catarrhs in the other three.

A further support for the correctness of his views Hermann sees in the fact that Vulpius has remarked a notable amelioration, or even recovery, when middle-ear chronic catarrhs were treated with thyreödin (in the form of tablets). The same took place when an already confirmed sclerosis was treated in a like manner.

We all know that thyreödin has the quality to remove obstacles in the circulatory system, and this very quality must be, and is, the reason why chronic middle-ear catarrhs are successfully treated with thyreödin whenever perturbations of the above mentioned kind coexist.

TREATMENT OF DIFFERENT KINDS OF TUBERCULOSIS WITH PERCO.—*Perco* is the name given to a combination of bals. Peruv. and cinnamonic-acid, and is also called *Peru-cognac*. Dr. Schmey, in No. 95, November, 1898, of the *Deutsche Medicinal Zeitung*, furnishes a second report on the efficacy of this remedy, which he gives in milk to his patients, every two hours, in tea, and tablespoonful doses, according to the age of the sufferer.

Dr. S. says that the internal use of Peru-balsam has, in his practice, never exercised a pernicious influence on the kidneys, and has never produced nephritis, but he earnestly warns against base imitations which, of course, prove worse than worthless.

Perco, when pure, contains in a litre (= to 1000 *c. c.* or a trifle more than a quart, wine measure) 25 grams (one gram = 15 grains) of best Peru-balsam, and at least 10 per cent. of cinnamonic-acid, and is used in the treatment of tuberculosis in all accessible tissues, such as skin, bones, articulations, but Dr. S. treats with *perco* successfully also intestinal tuberculosis.

Peru-balsam, it is well known, was long ago an old and

trusted remedy against tuberculosis, but the knowledge of it had almost been lost, until Professor Sayre, of New York, again drew attention to it in treating externally spondylitis and its abscesses with this remedy.

PUBLICATIONS RECEIVED.

The American Year Book of Medicine and Surgery, edited by Geo. M. Gould, M. D.—W. B. Saunders, Philadelphia, 1899.

Compend of Human Physiology, by A. P. Brubaker, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

3000 Questions on Medical Subjects, Arranged for Self-examination.—P. Blakiston's Son & Co., Philadelphia, 1899.

Practical Treatise on Fractures and Dislocations, by Lewis A. Stimson, M. D.—Lea Bros. & Co., New York and Philadelphia, 1899.

American Text-Book of Diseases of the Eye, Ear, Nose and Throat, edited by G. E. de Schweinitz, M. D.—W. B. Saunders, Philadelphia, 1899.

Diseases of the Eye, by G. E. de Schweinitz, M. D.—W. B. Saunders, Philadelphia, 1899.

Lectures on Appendicitis, by Robt. T. Morris, M. D.—G. P. Putnam Sons, New York and London, 1899.

Transactions of the College of Physicians of Philadelphia, 1898.
Report of the Kensington Hospital for Women, 1898.

REPRINTS.

Abdominal Section on a Patient Suffering from Exophthalmic Goitre—Shall Absorbable or Non-Absorbable Ligatures and Sutures Be Employed in Hysterectomy and Salpingo-Oophorectomy? by Charles P. Noble, M. D.

The Hypodermatic Use of Mercury in the Treatment of Syphilis, by Edward H. Shields, M. D.

Horny Growths of the Ear and Keloids of the Lobule of the Ear, by Oscar Dowling, M. D.

Clinical Report from the Winyah Sanitarium, by Karl Van Ruck, M. D.

Positive Proofs that the Blood Can Circulate Without the Aid of the Heart, by Matthew Joseph Rodermund, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the State of Louisiana.)
FOR JANUARY, 1899.

CAUSE.	White.....	Colored...	Total
Fever, Malarial (unclassified).....	2	3	5
“ “ Intermittent			
“ “ Remittent	1		1
“ “ Congestive.....	2		2
“ “ Typho	2	1	3
“ Yellow			
“ Typhoid or Enteric.....	3	3	6
“ Puerperal			
Influenza.....	57	13	70
Measles			
Diphtheria	2		2
Whooping Cough		1	1
Apoplexy	9	7	16
Congestion of Brain.....	7	3	10
Meningitis	6	3	9
Pneumonia.....	59	64	123
Bronchitis	32	13	45
Cancer.....	11	3	14
Consumption.....	50	33	83
Bright's Disease (Nephritis)	33	18	51
Uremia	1	1	2
Diarrhea (Enteritis).....	6	4	10
Gastro-Enteritis	4	1	5
Dysentery.....	2	5	7
Hepatitis	3		3
Hepatic Cirrhosis	8	2	10
Peritonitis.....	3	1	4
Debility, General	1	3	4
“ Senile	32	20	52
“ Infantile	6	4	10
Heart, Diseases of	31	18	49
Tetanus, Idiopathic			
“ Traumatic	2	6	8
Trismus Nascentium.....	8	3	11
Injuries	17	14	31
Suicide	5		5
All Other Causes	107	59	166
TOTAL	512	306	818

Still-born Children—White, 18; colored, 11; total, 29.

Population of City (estimated)—White, 210,000; colored, 90,000; total, 300,000.

Death Rate per 1000 per annum for month—White, 24.38; colored, 34.00; total, 27.27.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.14
Mean temperature	53.00
Total precipitation.....	2.44 inches
Prevailing direction of wind, north.	

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.]

SIGNS AND TESTS OF DEATH.

By JUSTIN HEROLD, A. M., M. D., NEW YORK.

Formerly Coroner's Physician of the City and County of New York; Late House Physician and Surgeon of Saint Vincent's Hospital, New York City; Member of the New York County Medical Association, New York County Medical Society, New York Medico-Legal Society, New York Society of Medical Jurisprudence, New York Academy of Medicine, German Medical Society of the City of New York; Author of "Herold's Legal Medicine."

"How wonderful is Death—

Death, and his brother Sleep!"—SHELLEY, Queen Mab, I.

"To be buried alive is, beyond question, the most terrific of these extremes which has ever fallen to the lot of mere mortality. That it has frequently, very frequently, so fallen, will scarcely be denied by those who think. The boundaries which divide Life from Death are at best shadowy and vague. Who shall say where the one ends, and where the other begins? We know that there are diseases in which occur total cessations of all the apparent functions of vitality, and yet in which these cessations are merely suspensions, properly so called. They are only temporary pauses in the incomprehensible mechanism. A certain period elapses, and some unseen mysterious principle again sets in motion the magic pinions and the wizard wheels. The silver cord was not forever loosed, nor the golden bowl irreparably broken. But where, meanwhile, was the soul!""* Real death never misses fire, although the steed upon which this grim

* POE, *The Raven*.

messenger travels this globe is pictured as a swift and pale horse, still he has a sure aim.

Death is the cessation of all the phenomena of the human body which we call vital; the cessation of all acts, whether in animal or plant life. It means to be deprived of life, to be opposed to life and to living; it means to be reduced to that state of a being in which the organs of motion and of life are irrevocably lost to a possibility of their resuscitation; their capabilities and functions are lost. The definite cessation of all acts constitutes death; the ensemble of these acts in an organized being constitutes life. Where there is a total and permanent cessation of all animal and vegetable functions, vital in their importance, that cessation certainly and surely means death. The organs not only cease to act, but also lose the susceptibility of renewed action, by whatever means that may be employed. This cessation of function is the end of all physiologic action, yet really the beginning of another life (what becomes of the mind or thinking principle, in man or animal, after death, is a matter of philosophic conjecture or religious faith, and can not be treated of here), a life characterized by tissue changes and appearances at different stages. It is a second life of metamorphoses and an existence of parasites, entirely different from the first life, but from a scientific standpoint equally as interesting. Death is not an inevitable transition to every living creature; the protoplasm of which we are constituted passes into the state of dead and putrid matter in a very interesting manner—in a manner as deep and difficult of solution as the necessarily insoluble WHY.

Unicellular organisms divide, and from this mere division of self take unto themselves a distinct immortality of their own, the individual elements dying; propagation is then confined to certain elements, the unicellular immortality is lost as soon as the elements have advanced in differentiation.

The term of existence that nature has fixed for man is seldom reached, death by violence or disease is the rule; that from age or the gradual wearing out of the human mechanism, the exception. Natural decay of the organism, as in old age, or from the derangements or lesions of the vital organs caused by disease or injury are the causes of death in the human subject. The processes actually cease to repair the inertia of all that was capable

of motion under life's regime and which is extracted by this so-called natural decay. Cessation of life is death, it is the failure; the living organized body ceases to perform its functions, in whole or in part—it is dead. When the first life ends, and the second begins, is a question that has not yet been definitely settled; during this transition stage subjects have been supposed to be alive, and live subjects have been treated as dead. We hear now and then of persons having been buried alive who were really and practically dead.

SOMATIC DEATH.—The death of the body as a whole is termed somatic death; this also is the popular idea of the word death. It is the absolute cessation of the functions of the brain, the circulatory and respiratory organs. The time of its occurrence can generally be reckoned by the entire and continuous stoppage of the circulation and of the respiration. General death is of two kinds—death of the body as a whole, which is somatic, and death of the tissues, which is molecular.

MOLECULAR DEATH.—Local death is going on at all times and in all parts of the living body, in which individual cells and elements are being cast off and as fast as they are so cast off they are replaced by new cells; this is one process that is essential to life. When death takes place the body as a whole dies first; there is an entire disappearance of the vital actions of the ultimate structural parts of the body. But the death of tissue itself does not occur until after a considerable interval, for it should not be forgotten that life in the ordinary signification of the term continues for some time after death, not only in the muscles, but also in other tissues, as well as in the vibratile cells of the epithelium and in the movements of the cells and germs; this may continue for one or two days. This is called molecular life and manifests itself after somatic death; were we to know when it occurs, we would then know the exact time of death; by this I mean to say the exact time of the cessation of molecular life, for certainly complete molecular death is the true and scientific death of the human body, for molecular death may be partial as well as complete. Molecular death may attack a part, a tissue, or an entire organ, without causing a general stoppage of the circulation. The part of the body thus affected becomes obedient to the operation of the ordinary chemie and physiologic agencies which govern the inor-

ganic molecule. . . An incessant disintegration of tissue may occur without interfering with the general stoppage of the circulation ; the active processes of life being manifest throughout ; this is pure molecular death in part. That part of the organism in which it takes place may or may not throw the whole mechanism of the human body out of gear ; the part may be too weak, and thus partial molecular death proceeds ; its existence may be proven by calorificity and muscular irritability, by the post-mortem growth of the nails, of the hair, and occasionally by evidences of nutrition and secretion. Complete molecular death, is caused by a progressive action and a progressive suspension of vital activity, not only in one, but in all parts of the organism, thus we are all at sea as to the period of its occurrence. While efforts at resuscitation in somatic death are frequently rewarded with favorable results, such efforts in complete molecular death are without avail, and the precise moment of its occurrence is likewise an as yet unsolvable feature.

SIGNS OF DEATH.—This subject is one of such immensity, of such depth, and burdened with so many and difficult features, that any effort on the part of any scientist must be fraught with the greatest labor, to be torn with the shafts of criticism, to be rent asunder by the blows of the ever-present aunt, uncle, or descendant of some one claimed to have been buried alive. The scientific world is divided on the reliability of certain or even all of the tests. Death has its phenomena, it has its signs, its reality must be determined by these, a few of them can not be denied, still cases will be reported for centuries to come, where the corpse retains all the features of the living body. The public are to a certain extent familiar with the signs of death, especially the ever-present undertaker ; it thus becomes a matter of the greatest concern for the physician and also the lawyer to familiarize themselves with these phenomena and signs of death, with that I mean the precise and unalterable signs of death. For certainly no physician is justified in certifying that a person is dead unless several of the unalterable signs of death be present, and also well marked ; life is not always extinct because one or two signs of death are evident, still I say that it is the rarest thing in the world, not excepting anything, for the physician to be placed in any doubt as regards the actual presence of death. Although the question of

whether death is real or apparent is oftentimes one of great difficulty to the ordinary layman who in these days is allowed to settle this point, still very few cases of suspended animation are on record as being buried alive. There has been, however, among the people of all countries, for all time, a dread of being buried alive. It has become a nightmare to some, haunting them until cutting of the radial has been incorporated as one of the provisions of their will, to be carried out after death, in order to prevent live burial. This is an unreasonable fear which haunts men, women and children. The physician can and should tell the families of the departed that he has discovered unmistakable signs of death, and thus assure them that life is extinct. This fear has been augmented by sensational reports of bodies being dug up where it was discovered that the position of the body differed from that which it had when lowered into the earth. This causes the friends and family to believe that life had not been extinct at the time of sepulture. The danger of live burial is reduced to the minimum, as I believe that any physician can determine the existence of death, and in all cases reported of live burial, I am quite certain that had a physician seen the body he would have detected whether there were any doubtful signs or not, for there are certain signs of death which are known to the medical man which are, in my opinion, past all argument to the contrary. These signs are also known to laymen, and are conclusive; thus the danger of live burial is reduced to the smallest possible chance—in fact, I do not believe that it occurs. An error of judgment is possible, but the watchfulness of family, physician and friends in these days precludes any such possibility. For certainly the signs of death are as definite and as positive in a few hours after death as they are in a few days; still we must not set aside this matter so lightly until we get more positive signs of the reality of, and the explicit presence of death. Physiologic discernment must be brought into play, in the determining of the reality of death. The action of vital organs is frequently suspended, producing every appearance of death; by proper manipulation they may be restored to activity. The most common test which is to ascertain whether breathing has stopped or not is invoked by all classes of persons, in all walks of life; breathing has been known to stop for hours in cases of suspended anima-

tion, and so on through all the signs of death. It has been claimed from the times of the Grecian and Roman philosophers that there was no certain sign of death or of the cessation of life. It is almost a physical impossibility to provide for the making of all the tests known to science, on any single corpse, still no one test in itself is sufficient; they are to be taken collectively. The great need of the day is the possession of some simple test, an infallible test, one that can be applied by the physician at the bedside, at once, and before the certificate of death is filled out. The test I have in mind is one which applies to the circulatory system, and in my opinion it is infallible; yet, although recommended and used for many years, its infallibility has been questioned, although no cause therefor has been given. I will refer to this test as one which can be applied immediately. It is positive, it is reliable and, in my opinion, can never fail. I claim this as a simple and sure test of the departure of life from the human or any other body.

To determine by tests whether the bodies were those of dead persons or of persons apparently dead, I undertook to apply the foremost and best tests known to science on the bodies of 7900 persons, males and females, young, old, and of all conditions of life and nationalities. These observations comprised the time between March, 1882, and December, 1898, almost 17 years. The modes of death in these cases were by disease, old age, homicide, accident, suicide, and still-births. It was not always easy to determine from the histories of the cases when death had ensued, but to my own knowledge death had existed all the way from one second to eight months. I saw the bodies in all the stages that follow dissolution, in cold weather and in the heat of summer, in private residences, in the morgue, on the highways, in fact in all conditions and under all circumstances. The phenomena of vital existence give way to the phenomena that accompany death, rapidly in some cases, slowly in others.

We are all familiar with the scientific fact that decomposition may take place before death—namely, in gangrene of the lungs or of the extremities. We know as well that bodies may lose their heat before as well as after dissolution. We know that motion and sensibility may disappear before the respiration and heart beat cease. We know that bodies become rigid in some instances before death, and still these phenomena are those of

death although they do occur in life. Valuable incentives have been offered for the discovery of some sign of death, certain in application and unfailing in its conclusions. In my observations which will follow in the succeeding pages, I believe that among all the signs of death two are infallible, the tests therefor being equally so. One test is so simple that it can be applied immediately after the cessation of respiration and the heart sounds; the other sign appears after the disappearance of rigor mortis. The tests I employed were some of them very old, others were of more recent date. Usually all the combined signs of death are considered as a criterion; I am certain that if one of the tests mentioned is used there will be no necessity for the use of any of the others, as I believe that this one sign is reliable and never failing. The signs of death are in the majority of cases as certain and as definite as anything could be. The philosophers claimed that there was no certain sign of death or cessation of life. It has also been claimed that persons have been buried alive; I venture to say that now no medical student could be tripped up on a case of apparent death; as for persons being buried alive, if any such have occurred, they must have been in instances where no physician had been called to verify the fact of the cessation of life, consequently the blunders have been popular ones. The signs of death are certainly unmistakable, under the eye of the vigilant student or the practical physician. I will now consider the signs of death and the tests therefor, as I found the former, and as opportunity afforded me to apply the latter. The following order was observed, in noting the principal signs and tests of death.

1. CESSATION OF RESPIRATION—

- a) Mirror test.
- b) Feather test.
- c) Water or mercury test.
- d) Stethoscopic test.
- e) Rhythmic traction of the tongue.

2. CESSATION OF CIRCULATION—

- a) Stethoscopic test.
- b) Ligature test.
- c) Scarification and cupping.
- d) Opening of an artery.

- e*) Needle test (Cloquet's).
 - f*) Fluorescine test.
 - g*) Injection of ammonia (Monte Verde's test).
 - h*) Diaphanous test (Carriere's).
 - i*) Roentgen ray.
3. CHANGES IN THE EYE—
- a*) Test by bright light.
 - b*) Test by mydriatics.
 - c*) Test by ophthalmoscope.
 - d*) Test by ophthalmatonometer.
4. LOSS OF ANIMAL HEAT—
- Temperature test.
5. LOSS OF SENSATION AND OF MOTION—
- a*) Electric test.
 - b*) Heat test.
 - c*) Caustic test.
6. MUSCULAR FLACCIDITY AND CONTRACTILITY.
7. CADAVERIC ECCHYMOSES, LIVIDITY OR HYPOSTASES.
8. CADAVERIC RIGIDITY, CADAVERIC SPASM, RIGOR MORTIS.
9. PUTREFACTION.

I. CESSATION OF RESPIRATION.—In my observations on the seventy-nine hundred dead, this sign was present in all without exception. Thus 100 per cent. of the bodies presented absence of respiration, and in no case was I enabled to produce a respiratory effort. Thus, absence of respiration can generally be regarded as sufficient to determine the reality of death, although this rule does not hold good as a sign of death in all cases; it has been demonstrated by good authority that a child may live and yet show absolutely no signs of life, so far as its breathing apparatus is concerned; thus it becomes a very difficult matter to decide whether a child was born dead or whether it died after birth. The fact that on autopsy evidences are found of the lungs having been inflated, is not positive proof that the child was born alive, for it has been proven that children breathe imperfectly before birth. These remarks apply to still-births. Immediately after birth, children may live for hours and even days, without an apparent effort at breathing. In such cases, partial or bronchial respiration takes place. There are cases

recorded, although they are very rare, of children living twenty-four hours with complete absence of air from the lungs. Resuscitation did not follow any of the efforts made in my series of cases, although persons have been resuscitated, when apparently breathless; in so-called still-births, breathing has been produced in numberless instances, still in 160 cases that I have experimented upon, in not one instance was I able to produce natural respiration. I made attempts in these cases lasting as a rule five minutes; if no respiratory movement could then be produced, I marked the case as certainly beyond hope. I consider that the continuous cessation of respiration may be regarded unequivocally as indicating death; at times it may be difficult to determine positively whether respiration has ceased. The respirations may be infrequent or they may be shallow. Any longer suspension of respiration than five minutes must in my opinion prove fatal, for the very simple reason that respiration is an act of vitality. It is claimed that some persons can hold their breathing apparatus in abeyance for minutes at a time, but did you ever hear that any one attempted suicide in this manner, and if it was attempted did any one ever succeed? Respiration is one of the most essential of vital acts, consequently its permanent suspension is a most positive sign of death. Usually, respiration ceases some seconds, in some cases some minutes before the heart's action, still the stoppage of respiration is not in all cases to be considered as a sign of the disappearance of life; from this we must conclude that the moment of death can not be reckoned as being identical with the cessation of respiration. When all the usual signs of breathing are absent life may still be present. Some of the conditions associated with stoppage of respiration are matters of common observation, even with the most ignorant. It is necessary in all cases, not only to ascertain whether breathing is extinct, but also to determine whether the lungs have actually lost their power of being revived. Suspension of the function of respiration can be restored, when occurring as a result of certain conditions, but when absolute stoppage of this vital act occurs, no power on earth can restore that function. The tests applied, in my series of 7900 cases, were as follows:

(a) *Mirror Test.*—An ordinary pocket mirror was suspended over the mouth and nose, this was done in all of the 7900 cases.

in order to collect any traces of moisture which might escape through the act of breathing, but not through any other processes. The mirror in every case was cold; the mouth of the corpse was forced opened when possible. The mirror must be held either close to the lips, or anywhere from one to six inches therefrom; in the majority of cases it was held at a distance of one-half inch, for a length of time anywhere from half a minute to one hour. This test has been used from time immemorial, and is simple, but unreliable in the highest degree. Moisture condenses and dulls the mirror's face, the presence of moisture may prove life, but its absence does not prove death. In 39 cases of the 7900, this mirror test was disproved, in that the face of the glass became covered with moisture, and was soiled; this moisture and soiling was produced by the evacuation of gases. In none of the cases was moisture found on the mirror, where it could in anywise be attributed to breathing, although in 781 cases it was held or placed over the mouth and nose for the space of one hour. Although in cases where decomposition had already taken place, it was useless to try this test, still it was used, the object being to get the condensation of vapor from the gases of decomposition.

(b) *Feather Test.*—Suspending a feather before the mouth and nose of a corpse, or placing a piece of cotton-wool, on the lips to detect currents of air and the absence of movement in these two processes is considered an indication of the stoppage of breathing; in 420 cases in which I used this test, movements were detected in 180, but these movements were imparted by surrounding currents of air. This test is as untrustworthy as the mirror test, and no positive conclusions should be drawn from the use of either of them.

(c) *Water or Mercury Test.*—The standing of a glass of water or quicksilver on the chest of the dead person. I used this procedure in 378 cases. It proved as unreliable as the two former, in that contractions of the diaphragm and probably of other muscles of the body produced a disturbance of the surface of the liquid used, in 17 cases. In one case of death caused by cancer of the omentum, an actual movement of hiccough occurred, without the audible sound; this continued for some time after the respiration and circulation had ceased. In this case the water almost overflowed from the movement imparted to it by this

post-mortem phenomenon. A shallow vessel may be used instead of a glass, but in any event this test is unreliable.

(d) *Stethoscopic Test.*—Auscultation with the stethoscope was performed in 1406 cases, but in no case was a respiratory sound heard.

(e) *Rhythmic Traction of the Tongue.*—I practised Dr. Laborde's system of rhythmic traction of the tongue in all cases dead less than two hours. As far as I could ascertain I got no response in any case. It was continued in some instances for twenty minutes, in one case for two hours, especially in cases of still-birth, which numbered 160, but in none of these did I get the least encouragement.

Movements of respiration are sometimes difficult to observe; they may be going on and still not increase in depth or in frequency by any process that may be used; all tests may be used and still no response be had. Certain animals during the time of hibernation breathe so infrequently and so superficially that the most acute observer may be nonplussed. Respiration may cease for a short time and be consistent with life; entire stoppage does not preclude life, entire and continuous stoppage of respiration does.

2. CESSATION OF CIRCULATION.—The suspension of the cardiac function has been noticed by many observers in cataleptic, lethargic, syncopic and trance conditions. I have never met with any of these cases but that I could discern an audible heart sound. Like respiration, if cessation of the heart were absolute dissolution would follow inevitably, for certainly life can not continue without circulation. Like the respiratory movements, the movements of the heart may be very slow and infrequent. Continuous cessation of the cardiac function precludes all possibility of a return to life; it may be regarded unequivocally as indicating death, still it is very difficult at times to ascertain with certainty whether the heart is beating or not.

How can we conceive of a human being living for twenty, forty or sixty minutes without breathing, without circulation? The beat of the heart may be reduced like the number of respirations—that is, to a minimum, as it occurs in head injuries, or in certain neuropathic conditions—but a continuous stoppage of the circulation means death. The absence of the pulse at the wrist does not denote absence of circulation, for the heart may still be

beating and resuscitation may be possible; even with the finger on the radial no impulse is felt. But when the heart ceases to beat death ensues. The heart may beat but four, six or eight times a minute, as it does in the hibernating animals; this is also possible in human beings but if the cessation of the heart's action be entire and continuous, then it can be taken as a certain sign that life is extinct. Vitality may be reduced to the lowest ebb, but the sounds of the heart can always be distinguished. Absence of pulse may occur in many diseases and conditions, but the mere absence of the impulse of the heart at the wrist does not denote in all cases a cessation of the action of the heart, either temporary or continuous; the heart may cease its beating for a time, and then after a brief interval recommence its action. Such cases have been reported in which the heart recommenced its action after intervals of rest of twelve and fifteen minutes. Heart pulsations have been produced, so that they became perceptible fifteen to thirty minutes after an apparent still-birth, but in no case have I ever seen such a result. Where the vital energies are reduced to a minimum, not only do the heart beats become reduced in number, but their characters are lost. Thus in cases of profound sleep, or in cases of so-called trance, in the human subject, the action of the heart is slowed, and its impulse at the wrist, or as heard over the cardiac area in the chest, may become so feeble as to escape the notice of the medical examiner. But if auscultation be practised carefully and long, at intervals, of a few minutes at a time, the heart's action can be detected. These conditions of profound and long sleep, may be accompanied by a rigidity simulating cadaveric rigidity, especially when it occurs in women and young girls. This is a pure counterfeit of death. In these cases also, the use of the stethoscope will detect the heart's action, infrequent and feeble as that action may be.

Sleep may be so profound as to last days and nights, becoming deeper and deeper. The skin in these cases may take on the appearance of death. The limbs may become rigid, the secretions may cease to be manufactured, that they may become suppressed, but the feeble impulse of the heart is always present and can be detected by the practised ear, together with the assistance of the stethoscope.

In cataleptic conditions, where there is a coldness of the sur-

face, a pallor of the skin, an almost imperceptible pulse at the wrist, with rigidity of the limbs, with the eyes dulled, and unchangeable to light, with respirations infrequent and almost imperceptible, in fact a puzzle to the most scientific—in these even auscultation will detect the heart's sound. In fact, throughout all these cases that have been reported, the action of the heart has been detected by careful and painstaking stethoscopy. When cessation of the action of the heart is permanent for an unreasonable length of time, life is certainly and unequivocally extinct; continuous stoppage of the action of the heart can not and never will be overcome, by any means known to us or to future generations. It is therefore in my opinion a criterion of certain death. I will agree that the simple placing of the finger on the radial is not sufficient, to ascertain death, still in how many cases is a further test for death made? The pulse may be imperceptible for two, five, and sometimes one hundred and twenty minutes, if we are to believe in the cases that have been so reported; the action of the heart may be perceptible during these periods of time, by auscultation, then stopping, then appearing again, finally resuming its normal action, or disappearing entirely, consequently the pulse is not as reliable as auscultation of the heart itself. A low form of circulation of the blood may persist for three hours or longer, after respiration has ceased. In these cases, circulation can not be taken as a sign of life, all efforts at resuscitation being of no avail. It is claimed that the heart can beat without being heard by the most expert ear. I do not coincide with this view, as will be explained in the tests made to determine the existence of circulation as performed by me in 1406 cases of dead bodies, the balance of the 7900 being so certainly dead as to make it appear foolish to auscultate for the heart's action. I claim that if continuous auscultation is performed in doubtful cases for the space of thirty minutes, even for fifteen minutes, or at intervals of a few minutes at a time, no error can be committed. The force of the contractions of the heart may be lessened, the frequency of its action may be reduced, still the expert can detect the presence of life by means of the stethoscope. This is the main point to be decided, this question whether or not the heart continues to contract, for it is admitted that the pulse may be entirely absent and still cardiac contractions be present, feeble in the extreme,

scarcely recognizable, infrequent, a scientific puzzle in fact, but the stethoscope proves the bulwark, the mainstay of science as applied to medicine. In all these reported cataleptic and trance conditions, in which the friends of the family, and even the physician, note an entire absence of voluntary movement and an to all apparent condition of death, in all these cases, although the impulse of the heart at the wrist may not be perceptible to the touch; the ear to the chest may not detect the characters of the first or second sounds of the heart, yet the careful auscultator, with the improved instrument, can settle the point whether the heart is at a standstill or not. The characteristic conditions attendant upon instances of catalepsy and trance overshadow to such an extent the signs of real death that error is the extreme exception. When the heart actually ceases to act for twenty minutes, in my opinion, real death is certain; for the heart is the last organ to die. Cessation of breathing is more apparent to the medical attendant than cessation of the circulation, the former taking place some minutes before the latter; in cases of asphyxia, where the blood being fluid and capable of flowing, means are resorted to to give oxygen to the blood, the circulation and breathing may be restored. In death from disease, however, the blood takes on a more coagulable form, and in these cases no efforts known to science can restore the circulation, much less the contractions of the heart. The entire and continuous stoppage of the contractions of the heart are certainly signs of sure death; while the heart may act in an independent manner for some minutes after the cessation of respiration, it can not be called into action after its entire stoppage. The heart will beat after its removal from the body, it will contract after being cut into fragments and laid on a plate, but it does so from an inherent life of its own. Vitality can not be restored to the heart, after its entire and continuous cessation, by any means known to the scientific or other worlds. Out of 1406 cases in which I attempted to restore the circulation, of the 7900 experimented upon, in not one case did I get a response to the general or to the local circulation, with all the tests that I used.

(a) *Stethoscopic Test*.—It were vain and almost foolish for the physician to apply the stethoscope to the detection of the heart sounds in a case where rigor mortis had set in, or in the first

stages of putrefaction, immediately after rigidity had disappeared. I used the stethoscope in but 1406 cases out of the 7900 examined. In these I was informed that death was recent. The region of the heart was examined carefully throughout its entire area, and in no case was any semblance of the heart sound discovered; the surrounding auditory conditions were as perfect as I could well make them by excluding all outside noisy influences. In the majority of these cases the entire region of the chest was examined, to ascertain if there perhaps might be a sound from a displaced heart—displaced upward, downward, to the right or backward. In some of these cases auscultation was practised for hours, at intervals of time ranging from five to thirty minutes. Many of these tests with the stethoscope were undertaken on the bodies of the drowned, in which cases it has been reported that the heart may beat thirty and even sixty minutes after respiration has ceased. In all my observations such an occurrence never showed itself, though in quite a few of the bodies the stoppage of respiration, through immersion or submersion, had occurred but a few minutes before my stethoscope was applied. Neither did I find that any of the cases were in a condition of trance, syncope or catalepsy. In cases of asphyxia, from other causes than drowning, where the blood is supposed to be very fluid after death, of which I have seen quite a number, and where it is taught that the blood is in such a condition that it will flow easily, I was never able to detect a sound over the cardiac area, even after all recognized efforts had been made to resuscitate. It has been recommended that the heart should be examined for thirty minutes, without taking the stethoscope from the cardiac area. I have tried this manner of listening and finally could hear heart beats, but they were the beats of my own heart. I could also hear any number of indescribable sounds that could by no manner of reasoning be ascribed to the action of any heart. The experimenter must have a well trained auditory sense, he must be accustomed to auscultate every day, as it were, in order to detect the feeblest sound in the chest. One may hear absolutely nothing, another auscultator will claim that he hears sounds, still they can not be ascribed to the action of the heart. Faint movements of a weak heart may escape the auditory senses of some; in fact, the right side of the heart may contract for

some time after the left side has ceased its action, but to the expert auscultator even this becomes apparent. The discovery of heart sounds in doubtful cases requires some degree of technic skill, which can only be attained by the constant and careful use of the stethoscope; not for an instant only, but for minutes, say five to fifteen, then resting, and re-examining. This is advisable in all doubtful cases. If after careful stethoscopy, cessation of the heart's action is absolutely established, then it is useless to go any further, it is then almost absolutely certain that death has ensued. I doubt that the careful medical man can make any error in this conclusion. Furthermore, there can be no doubt that this test of stethoscopy is one of the best tests to distinguish between real and apparent death. Taking into consideration the fact that the sounds of the heart may continue in a very slow and weak manner, the microphone, or the phonendoscope may be applied in addition to the stethoscope. In all my experience it seemed to answer the purpose, and I hold it to be a reliable and certain test.

(b) *Ligature Test*.—From childhood's tricks, we know that when a string is coiled about the finger, that the part beyond the string becomes blackened. This test has been awarded a prize, but has not earned its reputation since. This method results with the living body in producing a stoppage of the circulation; in the dead body no change in the color of the skin is observed. This is perfectly natural and reasonable. If the finger or the lobe of the ear be bound tightly, with a ligature, that part of the finger or ear beyond the point of constriction will, if the person be alive, become of a bright red color; this color increases in depth until it finally assumes a uniformly bluish red tint, and on looking further a narrow white line may be seen where the ligature constricts; but if a ligature is applied to the finger or lobe of the ear of a dead body, no such changes are noted. This has been considered a certain test of death as regards the circulation; it indicates in all cases whether circulation persists or is entirely absent. This test is especially valuable in cases where the heart beats slowly and feebly, for certainly if there be any circulation in the ends of the fingers or lobe of the ears, the ligature will produce a congestion at the point constricted. If life be extinct no change will be noted. This has been counted an almost infallible test by some author-

ities in ascertaining whether there be a continued circulation present. When in a decided hurry to use this test, a piece of worsted will answer, applied around the base of one of the fingers, or lobe of an ear, and left in place for about fifteen minutes, or even half an hour. If there be a continued flow of blood, the finger will swell beyond the ligature, and become dark in color, and on cutting the ligature, the tightened skin will be found colorless. A ligature of any material may be tied about the arm at almost any point; if circulation be continuous, the veins will swell below point of ligation. This test can be used by lay persons to determine whether circulation is continuous or not; it may be applied to fingers, toes, arms, legs or ears. If circulation is present, no matter how feeble, the part ligatured, in the course of a longer or shorter period of time, assumes a livid tint from the effects of strangulation and the damming back of the contents of the venous vessels, while a ring of anemic whiteness will form at the point of constriction, due to the pressure of the ligature on the superficial blood vessels. I used this ligature test in 987 of my cases, and in no instance was any change noted; in 182 cases I used this test on one or the other ears; in 776 cases I used it on the fingers, and in the balance of the cases I applied it to the arms or legs. I hold this test to be reliable (in so far) as it will indicate any circulation in the parts ligatured.

(c) *Scarification and Cupping.*—This test is that in which scarification and cupping are employed, in order to ascertain if the blood flows. If used immediately after the subject has ceased respiring, and before any effort is made to ascertain whether circulation is going on or not, the chances are that blood will flow, simply through and by the mechanical features of the test; in fact without using the cupping glass, or the scarificator, we know that blood will flow from wounds on dead bodies hours and sometimes days after death, especially if the bodies are placed in warm rooms, or during the process of putrefaction. Such phenomena can and do take place. Flowing of blood may take place as long as eight days after dissolution. This is an important fact to know and can be attested by any one who has performed sections on corpses, in which the first incision through the thorax brings blood, in some cases flowing in large quantities. If such a phenomenon takes place

then, why not from cupping and scarification? The fluidity of the blood, the flaccidity of the veins, the position of the dead body, all these tend to force the blood to the surface and out into the external world. These points are very important in this connection, and certainly ought to do away with this test as one regarded of sufficient importance or interest to be connected with the circulation of the blood. Capillaries may burst in dead bodies and take on the same aspects as hemorrhages of the same size in living bodies. I have noted this in eighty-nine of my cases. In seventy-one of them I found hemorrhagic spots of varying sizes, situated on the most dependant portions of the bodies of persons found dead on stairways, hanging out of bed, or in dependant positions in streets, etc. Dependancy of position was not a bar in some of the cases, especially in those with impoverished blood vessels, to the occurrences of hemorrhages on abdomen, when found lying on back, or on back when found lying on abdomen. In some cases the hemorrhages are so extensive as to show a free flow of blood when incisions were made into the skin. Blood no doubt retains its vital functions for a considerable time after death. When a vein is opened blood may or may not flow. Mechanical pressure, in the abdominal cavity, exerted on the diaphragm, and on the great vessels, heart and lungs, will drive whatever blood there is in the veins to the periphery. This blood escapes but does not coagulate; it is fluid venous blood. If scarification and cupping are performed on the body, yet warm from its life recently extinct, it ought not to coagulate, but in some cases it does. This is to be distinguished from the coagulation of blood from the living body. Leeches may draw blood from a dead body; I have seen it in one case twenty-four hours after death. This test is applied to determine whether blood will flow after death. It is an absolutely worthless test, and should never be relied on to the exclusion of other tests. I refer to cupping, leeching and scarification as distinguished from letting blood from an artery. The opening of veins in dead bodies may show that the blood is fluid or coagulable, also an obsolete test, and happily so.

[To be Continued.]

NOTES OF THE CUBAN CAMPAIGN.*

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

I had hoped to present to you some statistics to support some observations as to the effect of bullets during the late campaign in Cuba, but have been unable to obtain them. In reply to a letter to my late chief, Major and Surgeon L. A. LaGarde, who was chief surgeon at the Reserve Divisional Hospital at Siboney, I received a letter telling me that even at this late date there were no statistics in the Surgeon General's office that would be of value and that my own memory would probably be more accurate, so no accurate records can be presented. The cases on which my conclusions are based were seen on the hospital ship Olivette and at the Reserve Divisional or Base Hospital at Siboney. Surgery with troops in the field is a very different thing from surgery in civil life. At both of the hospitals, on shore and on the hospital ship Olivette, we were very short of surgeons, hospital corps men, nurses and medical and surgical supplies. On the Olivette there was comparatively little surgery done, as the operating there was confined to those wounded at Las Guasimas. After this fight nearly all of those requiring operation were sent to the Reserve Divisional Hospital at Siboney. For each hospital there was supposed to have been a hospital company of one hundred and six men, but as a matter of fact I do not believe that either of the hospitals or the Olivette had a third of this number. Of those there nearly all were recruits and knew nothing of nursing or assisting in operations. The number of surgeons was so limited that none of them could be spared to act as assistants during operations, so untrained help was the rule rather than the exception. We were rushed off without any ambulances and with but few litters, so after the first fight, and the early part of the second, it was difficult to get the wounded back at all. As some of you may know every regular soldier carries first aid packages containing gauze, bandages and slings and all are drilled in their use. This wise provision was of great assistance to us, as the wounds were, as a rule, in good condition when they reached us. It may be of interest to you to know that so far as can now

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be learned, there were but three primary amputations, all for shell injuries, and five secondary amputations, all of which were for gangrene, the result of wounded blood vessels—a marked contrast to the results in the civil war. This result was probably due to better antiseptics and the small calibre of the Mauser bullet. The great drawback to the modern small calibre bullet is that it does not stop a man unless it strikes so as to cause a fairly serious wound. I saw two men who were shot seven times before they stopped. For just such a reason the English had to resort to the so-called dum-dum bullet in India, and we would probably have to have a lead-tipped bullet, too, if at war with a nation of an aggressive type. Generally speaking, the wounds caused by the Mauser and Krag-Jorgensen bullets were very similar except in the brain. Major Alfredo Garcia, the Spanish chief surgeon, through whose courtesy I was enabled to examine the Spanish wounded, told me that they had but one case of brain injury to live as long as three days. The Spaniards did not open any skulls and did not open any abdomens. I have not seen any figures as to Spanish losses,* so give you Major Garcia's figures. He told me that they had 675 wounded, 381 killed, and 213 missing and unaccounted for. I believe these figures to be correct. The Spaniards were in bad physical condition, and many died from their wounds.

I did not meet any surgeon who saw any of the so-called explosive effects of the small calibre bullet, and there were almost no infected bullets. The Spanish sharpshooters used a brass-covered bullet fired from a Remington rifle, and at times the bullet would shuck its cover and an abscess form. Major Louis A. LaGarde, who was the chief surgeon at the Base Hospital, performed some experiments as to the relative penetrating powers of the Mauser, Krag-Jorgensen and Springfield guns that were of decided interest. At a distance of three feet from the muzzle all three were fired into yellow pine posts, one being put on the other. It was found that with ammunition of 1896 and 1897 the Mauser would penetrate a little more than thirty-four inches, and with that of 1895 would penetrate thirty-two inches. With our ammunition of the past year the Krag-Jorgensen would penetrate a fraction more than twenty-six inches,

* Lieutenant Colonel Havard, U. S. V., Chief Surgeon, has recently published some in the *Journal of the American Medical Association*.

and the Springfield a little more than five inches. Yet we found a large number of lodged Mausers, and Major Garcia told me that they found but few lodged bullets. When I told him of our experiments I asked him to explain the large number of lodged bullets found by us.

His answer was that it was on account of the great distance at which they were shooting, which was no answer at all, as we were firing at the same range as they were.

Except with a few men who were prominent or with some special case it is impossible to say who operated, so I will speak of some cases that impressed me, some of which were operated upon by me and some by others, and draw some conclusions from the whole number of cases seen by me, no matter who the operator was. We were so pushed for time that no notes could be taken before operation and all were sent back to the United States as soon after as possible. This was necessary because we were short of nurses, cots, and almost everything that would have been conducive to the comforts of the men. Before entering into a discussion as to wounds of special regions, I wish to say a few words as to the surgeons of the regular army with whom I was thrown at Siboney. In addition to being splendid fellows, personally, they did their work as cleanly, quickly, and satisfactorily as was possible under the circumstances; and no surgeon, volunteer or regular, faltered as to his duty whether at a hospital or on the firing line. Regimental surgeons and men of the hospital corps did specially commendable work.

Superficial and flesh wounds healed readily under one dressing if let alone, but some of the men came up to be dressed more frequently, thinking that they were neglected unless dressed at least every second day. In the few cases that did not heal the sloughing was only at the points of entrance and exit. I saw but two cases where clothing was carried into the wound.

I now pass to wounds of special regions:

Wounds of the Head.—Undoubtedly many men were killed outright or died within a few minutes as a result of wounds in this region. At the two hospitals probably thirty-five cases of cerebral injury were treated. From what I can learn, seven or eight died at the Field Hospital and the rest of them were sent back to the Base Hospital. Three or four died there, but

at least 50 per cent. of the remainder gave every reason for us to hope that they would recover at the time that they were sent back to the United States. Since my return I have heard of at least five who are still alive. At this time it is impossible to get any records, but it is possible that others are alive. Of the five cases of which I have heard, one was in a hospital in New York when I was there in September and was doing very well. He had been shot in the region of the arm centre on the left side and was still paralyzed in his right arm. The other cases were recalled by Dr. H. R. Carter, of the United States Marine Hospital Service, who was on duty at the hospital at Fortress Monroe, and the details of the cases were given me by a member of the Thirty-third Michigan Hospital Corps, who was temporarily attached there. One of these cases was shot behind the left ear, the bullet coming out near the occiput. There was some dilatation of the pupil on the left side, and some confusion of ideas when he reached us. The wounds were enlarged at points of entrance and exit and spicula removed. His recovery was uneventful, and I am told that he is perfectly well.

A third case was shot in the left side of the forehead, the bullet passing directly back through the skull. Strange to say, he never presented any paralytic symptoms, but when he reached the hospital he was in a dazed condition. Fragments were recovered and the wound dressed. The following morning I saw him sitting up smoking a cigarette, and he was apparently as rational as ever. I saw him at Montauk Point, and he was on duty with his regiment. It will be interesting to note the effects of cicatricial tissue here.

A fourth case, operated upon by Drs. Spier and Elliott, U. S. N., was the only one that I saw in which the bullet lodged. The wound of entrance was near the area centre on the left side. The bullet was found in the brain and removed and the wound packed with iodoform gauze. At the time of the last report he was still paralyzed in his right arm, but otherwise in good condition. The last case had a furrowed wound over the arm and leg centres of the left side. The wounds were enlarged and fragments removed. I was told that he was still without much motion on the right side. The method of procedure was to open the wounds and remove fragments. The surprisingly

good results were probably due to the very small calibre of the bullet.

Wounds of the Spinal Cord.—With the exception of one case these wounds were fatal. This one case was that of Edward Marshall, correspondent of the *N. Y. Journal*. He was shot low down in the left lumbar regions, causing a small lateral wound of the spinal cord. When he was brought to the hospital ship he had paralysis of both legs and of the bladder and rectum. The wound was enlarged and the fragments of bone that had been driven into the spinal cord and some clots were removed. On the second day he regained control of his bladder and rectum and there was sensation on the outer side of the thigh. His improvement has been slow but sure, and when I saw him in New York, he had perfect use of his right leg and partial use of the left but I doubt if this improvement will continue and he may require an amputation of the left leg. Generally speaking I doubt the value of operations of gunshot spinal injuries, but from the location of the wound and the small calibre of the bullet this seemed a specially favorable case.

Wounds of the abdomen did well without operative interference. Again I regret the absence of statistics, but there were about thirty such cases, with a mortality of about 50 per cent. No cases were operated upon at our hospital, but three were operated upon at the field hospital, and all died. It was said that the operator lacked experience in this line of work. While I have not in any way changed my views—well known to some of you—as to how these cases should be treated in civil life. when I saw the conditions I strongly advised against laparotomy. My reasons for this were the small calibre of the bullet, the difficulty in getting hot water and the absence of trained assistants. Then, too, it is a good deal of a question if in the congested condition of an army hospital after a battle we would be justified in taking the time necessary for such an operation to the detriment of other wounded men. As illustrations of the cases that recovered I will cite two cases. Major T. T. Knox, First U. S. Cavalry, was shot in the right loin, the bullet coming out between the ninth and tenth ribs. He was brought to the hospital ship about five hours later. When seen his pulse was 130, he was in a cold, clammy sweat, and his urine was full of blood. He also complained of abdominal

pains. His condition was such that he would have died on the table had he been laparotomized. Every three hours until the sweating was checked he was given strychnia sulph., gr. $\frac{1}{40}$, and atropin sulph., gr. $\frac{1}{60}$, hypodermically. At the end of about twenty-four hours he became quite tympanitic, but this subsided under full doses of magnesia sulphate. For four days his urine was of a chocolate color, and from the location of the wounds, he, in my opinion, undoubtedly had wounds of the liver and kidney. He recovered, and, I am glad to say, has been promoted.

The second case was Lieutenant Haskell, Rough Rider, who was shot in the left inguinal region, the bullet coming out through the muscles of the right side, a little anterior to the kidney. He recovered without a rise of temperature. His intestines were undoubtedly wounded, but the prevalence of diarrhea and the lack of food at the front served him and others in good stead.

In the long bones there was but little shattering, and it was not an uncommon thing to see a clean-cut wound without fracture. Wounds of the joints did well, and without complications. In one or two cases where there was much hemorrhage into the joint an incision was made and the clots turned out. There was not an amputation for joint injury.

After vessels were wounded, the hemorrhage, except probably in the abdomen, was no greater than from other bullet wounds. We had to tie the brachial and femoral several times, and sent one case of wound of the subclavian back to New York, where he died after operation. Wounds of the chest did well after being sealed.

To sum up my conclusions I would say that—

1. The wounds of entrance and exit should be enlarged and drainage used for cerebral gunshot wounds, if the condition of the patient will permit.

2. Chest wounds should be cleansed and sealed and treated symptomatically.

3. Abdominal work should not be attempted in the field unless there are symptoms of hemorrhage.

4. For fractures the best splints can be made from plaster of Paris, and in those of the leg the Bavarian splint should be used. Drainage is seldom necessary.

5. Wounded joints should be cleansed and immobilized.
6. Wounded vessels should be tied as soon as possible.
7. Nerve suture should be done at once for wounded nerves.

Clinical Report.

REPORT OF A CASE OF LABOR IN A WHITE GIRL OF TWELVE YEARS—POSTPARTUM HEMORRHAGE—RECOVERY.*

BY DR. M. J. MAGRUDER, NEW ORLEANS, LA.

During the early part of last summer I first saw this little girl (then four months pregnant) playing about the yard in a dress reaching not far below the knees. She seemed perfectly oblivious to her surroundings and just as unconcerned as if nothing were wrong.

She was then just past her twelfth birthday, having been born in Louisiana, April 12, 1886.

She began to menstruate during the summer of 1897 and ceased February 12, 1898, being just eleven years and ten months of age when she conceived. Gestation was uneventful—very little nausea or other disturbance, though during the last few months she filled out rapidly and looked much more mature after confinement.

Labor set in November 21, 1898, at about 3 o'clock and went on normally, though rather slowly, until 1 o'clock next day, when she gave birth to a live child weighing nine pounds. This I believe to be the largest child on record having been born alive to a girl of her age.

Almost immediately after the expulsion of the child the blood began to gush out, the uterus being completely relaxed. I introduced my hand and quickly removed the placenta. The hemorrhage continuing, and having no ice at hand, I began irrigation of the uterus cavity with hot water, raising the temperature (before I was able to control the hemorrhage) to such a degree as to completely destroy the uterine mucous membrane, which was, a few days later, thrown off *en masse*.

* Read before the Orleans Parish Medical Society, March 11, 1899.

I do not think I shall ever again attempt to check a flooding with hot water if I can get anything else.

Though the hemorrhage was not very profuse, the effect on my little patient was profound in the extreme, for when I had succeeded in stanching the flow she was unconscious and pulseless. I immediately gave hypodermics of strychnia, digitalin, atropia and nitro-glycerin, without any perceptible effect. I then decided to transfuse, but it was fully two hours before I could get the necessary appliances; and though the patient had been surrounded with hot bottles. her condition was, if possible, still more desperate.

I injected into the cellular tissue of the abdomen and beneath the breasts between one and a half and two pints of saline solution, but the circulation by this time was so poor that it seemed as if the fluid would never be absorbed.

Patient remained pulseless for at least two hours longer, when I could begin to feel a weak thready pulse, which gradually improved, and soon after midnight—about twelve hours after delivery—patient regained consciousness.

Convalescence was very slow, but at this time (March 11, 1899) mother and child are in good health.

Clinical Lectures.

I.

DR. MEIGS' VIEWS AS TO THE VALUE OF THE WIDAL REACTION TEST FOR TYPHOID AND ON THE SINGLE ORIGIN OF TUBERCULOSIS.

I wish to disentangle, so far as possible, a condition which has been something of a puzzle to me. This patient has been in the hospital since the 11th of January, and I wish to show you the picture as it presented itself to me when I first saw the man on Friday last (February 3). There has been little to guide me in my judgment of the case.

He is an Irishman, 20 years of age. He has never been ill

* Reported for the JOURNAL from the Philadelphia Clinics.

before. When he came in his temperature was 103 deg. He had been sick for three weeks with cough and headache. There was no blood in the expectoration. Urinalysis showed the urine to be orange-colored, acid, with a specific gravity of 1.035, and containing albumin. On examining the heart a systolic murmur was found; the impulse was forcible and regular. At the right apex anteriorly there was flatness. Bronchial breathing was heard, and there were some râles at the right base. The results of examination of the liver, spleen and abdomen were negative. On the 14th, three days after his admission, his temperature was 105 deg.; his pulse was not strong and there was bronchial breathing. A specimen of his blood was sent to the Board of Health, and the reaction to the Widal test was positive. On the 17th the bronchial breathing was more distinct. For twelve days there was nothing in his physical condition to indicate typhoid fever. On the 25th there were a few suspicious spots, and he was given naphthol, three grains every three hours, and ordered to be sponged. He was given an enema, which, when it came away, was tinged with blood. On the 1st of February there was a wooden percussion note. He was losing flesh, and was perspiring at night.

Now, here is a temperature chart which will do for almost anything you please. About six days ago his temperature descended to normal and it has been subnormal ever since. Now what is the matter with this case?

When I deal with a case like this, I wish there were no such thing as the Widal reaction. There was a discussion at a meeting of physicians the other night. I said it seemed to me after a good deal of study that at least as it is applied here, the Widal reaction is useless as a diagnostic aid. I am not referring to it as a scientific method. There is a disagreement even among bacteriologists about its value, and some think the blood serum itself should be used instead of the dried blood. But I mean that as it is applied for us, by our Board of Health, it is useless, because it is so uncertain. It fails to give us a positive reaction in some cases when there is no doubt as to the existence of typhoid fever. They say that, counting out the statistics of the soldiers with typhoid, in the last two years, their reaction has failed in but about 2 per cent. of the cases. That is not right by any means like that

in the Pennsylvania Hospital. And on the other hand they often give us a positive answer in cases which are not typhoid. I say that a test which fails in the very cases where we most want its assistance is useless.

Now, here is a case which I do not know how to diagnose. I do not believe the man had any hemorrhage from the bowels. There was little blood which came away with the enema, but I do not think it was a hemorrhage. Every now and then you get a case of acute sickness where you can not tell from the symptoms whether it is typhoid fever or tuberculosis. Often tuberculosis is set up on top of typhoid fever.

In this case I want to examine the chest to see what condition he is in to-day. There has evidently, from the reports, been some catarrhal pneumonia. There is nothing now that has any particular significance in indicating disease. I can discover nothing whatever that I should call abnormal. He has had simply catarrhal inflammation of the lungs, or some form of inflammation, which might be only a part of typhoid fever. It may be that the man is suffering from typhoid fever with an inflammatory process of the lungs; or an inflammatory process with tuberculosis, or tuberculosis with or without one of the others. It may be simply one of these three things, or a combination.

My own opinion is that he has had simply an acute catarrhal pneumonia. There is insufficient evidence for typhoid fever, none except that twice the Widal reaction was positive. Why do I set tuberculosis aside? Because, if the man has tuberculosis of the lungs, which has progressed so far as to render itself objective, it is likely to stay there. He has had certain physical signs, but they are not there now. If they came from tuberculosis, they would have been there now, and probably more of them. Another reason for excluding tuberculosis is that his fever has gone down to subnormal, and stayed there for the last six days, as it will do in acute catarrhal pneumonia. It is impossible to be absolutely certain, but I believe this to be the case.

I dislike the present doctrine of tuberculosis—that it is due to the tubercle bacillus. I dislike it because, if for no other reason, it makes us very hopeless whenever the diagnosis is made.

It is true that the bacillus does not exist very commonly in cases of tuberculosis. What is the history of medical view in the matter? The disease was not well understood two hundred

years ago. A French surgeon, after a post-mortem examination of consumption, described the lungs as being "rotten." There was very little known about it until, in 1819, Larimac said that consumption was always due to tubercles lodged in the lung, new growths without which was no tuberculosis. This was pretty generally believed until 1870, when Mirmeyer said that there were two forms of consumption, the tubercular and the inflammatory or a chronic catarrhal pneumonia, in which there were cheesy deposits. On this he dwelt a great deal. This view was almost universally accepted. It was said that one of the most dangerous things for the "phthisical" patient was that he should become "tubercular." At the time of Koch's discovery of the tubercle bacillus everybody went off to this as the one cause, going back to the old theory of the single origin.

A few years ago Sir Andrew Clarke wrote on "fibroid phthisis" He asserts positively that there is a non-bacillary form of the disease. In certain cases which he produced the bacillus could not be found. His opponents said that in spite of these few cases the theory must stand.

If there is one case of consumption where there is no bacillus, down must go the doctrine. I have always believed the doctrine of Niemeyer to be the correct one. There are many cases of consumption where no bacilli can be found.

II.

THE POSSIBILITY OF MEAGRE SYMPTOMS IN INTUSSUSCEPTION OF THE ILEUM.

BY GEO. R. RUSSELL, M. D., PHILADELPHIA, PA.

Intussusception, which is the invagination of one portion of the intestine into another, is most frequently found in infancy. The condition is a rare one and its recognition is required generally to save the patient's life. According to the latest authorities, intussusception can occur at any portion of the intestinal tract, but it is more common around the ileo-cecal valve.

The thinness of the intestinal walls in infants is supposed to account for the frequency of its occurrence in this class of patients. To this must be added the liability of the intestinal tract to derangements. And yet in the study of the statistics in

this disease, we at once see that the exciting causes are exceedingly obscure; for the majority of cases occur in children who are apparently in perfect health. In the series of cases collected by Holt, to the number of 385, there was a history of previous intestinal derangements in only 3 per cent., a most trifling percentage.

The actual process of the invagination has been cleverly demonstrated by Nothnagel, who has shown the invaginations were due to the irregular action of the muscular wall of the intestine.

The clinical symptoms are described as strongly marked by all authorities as well as being uniform and striking. The classic symptoms are the appearance of sudden illness, with severe pain and vomiting; the pain returning paroxysmally every few minutes, and the vomiting being first of the contents of the stomach, but containing finally nothing but bile. With this there may be one or two loose fecal stools; then only blood or blood and mucus are passed. The general symptoms are those of great prostration and collapse, pallor, feeble pulse, apathy and normal or subnormal temperature. The abdomen is relaxed, and a tumor is felt in the left iliac fossa. If the symptoms continue there may be added the signs of commencing peritonitis.

I wish to report the following case, which illustrates to my mind that the symptoms may be most obscure and lacking the characteristics of the clinical picture, and yet it was a fully developed case of intussusception.

I was called in to see a little girl, ten months old, who had been ailing for several days with loose stools. The stools before my visit contained thin fecal matter and thin bloody discharge. The vomiting was without pain and the stools had been passed without trouble or any sign of tenesmus. There was no appearance of pain nor was there any sign of a tumor anywhere. A careful search was made, for the possibility of the presence of intussusception was considered. The child had been allowed great latitude in feeding and I imagined that it was a simple entero-colitis and ordered her restriction of diet, to simple breast-milk. The child's condition remained about the same; she still continued to have stools of bad smelling material, but passed without pain or tenesmus. Her abdomen was soft and no sign of a tumor could be elicited. In the course of two or

three days, the child improved; it gave no evidence of pain; it slept well and the vomiting and fecal discharges improved greatly. In the course of the next night I was called suddenly and found the baby collapsed and apparently in great pain. This was the first time I had seen the child exhibit any sign of this symptom. The abdomen was flaccid and relaxed; there was no stercoraceous vomiting nor bloody stools, but the child died in the course of a few hours.

At the request of the family I made a post-mortem examination on the following day. I found the body of a fairly well-nourished infant with normal organs. On examining the intestines I found that the cecum and the ascending colon were invaginated in the descending colon some distance from its normal site. There were no adhesions and no peritonitis; the invaginated gut was still patulous; could easily pass my little finger through its lumen. The tumor was about five inches long, and extended from about two inches above the anus to the descending colon.

This case is interesting for the purpose of showing how much invagination may take place with the utmost obscurity in the clinical picture.

III.

THE TREATMENT OF SEMINAL EMISSIONS.

BY DR. B. K. TWITCHELL, PHILADELPHIA, PA.

Those sexual hypochondriacs who wander from doctor to doctor are often difficult cases with which to deal; one form of their nervousness is the worry about previous masturbation. There is one form of treatment which in my hands is often useful in its action—it is the application of a blister over the sacrum. It is often possibly as good in its psychic effect as in its actual medicinal results. These patients have gone probably from quack to regular physician and back again, and they are always ready to try just such a remedy, and frequently with the happiest results.

In that class of cases who have seminal emissions, usually during sleep without erection or with only a feeble attempt at erection, I like a mixture of dilute phosphoric acid and strychnia given in a form that I picked up some years ago. It is as follows:

℞ Strychniæ gr. j.
 Acid phosphorici dil..... f. ʒij.
 Sig.: 25 drops in water after each meal.

In the form of seminal emissions which occur during erection following mental or physical irritation, I give the bromides, or what I like still better, a mixture of hydrobromic acid and the bromide of sodium or lithium.

Of course it is necessary to see if any old stricture is keeping up any irritation and strict hygiene must be enforced. The patient should use a hard bed, not too heavy bedclothes, light suppers, little meat, and the bowels should be kept open. It is also necessary to avoid all sexual excitement.

It is a common complaint that patients state that in passing their urine, seminal fluid comes with it. I have made many examinations of urine in these cases and have never seen any spermatozoa in the urine voided excepting in the case of actual masturbators. I believe, therefore, that genuine spermatorrhea is a very rare condition.

I report in this connection the history of the following cases:

Geo. R., aged 29, a farmer, confesses to the practice of self-abuse during adolescence. About six years ago he began to have seminal emissions during the night; they increased until they occur nightly or nearly so. The man was despondent, nervous, headachy and constipated. His lungs, heart and kidney were normal. He was ordered the phosphoric acid mixture and a blister. In the next six weeks he had emissions only once a week. He continues in this good shape for six months.

H. B., aged 19, is a baker by trade. He has been a masturbator from childhood until recently. He has no especial symptoms now except that he suffers from sleeplessness and emissions following erection. He is a heavy meat eater. He was ordered hydrobromic acid, minims xv, with the bromide of soda at night and a blister. During the next ten days had no emissions and has had only three at the end of a month.

I could cite more cases, but these two reported are typical of the others. This treatment is generally sufficient.

Society Proceedings.

THE JOHNS HOPKINS HOSPITAL MEDICAL SOCIETY.

MEETING HELD MONDAY, MARCH 6, 1899.

DR. KNOX read a paper entitled "*Tendon Transplantation*," with a report of seven cases. The author reviewed at length the literature bearing upon this subject and described the methods adopted to-day in the effort to regain lost functions in a limb that is distorted or paralyzed. He reported seven cases of tendon transplantation performed in the Hopkins Hospital by Drs. Finney and Cushing, and exhibited photographs showing the remarkable improvement in patients brought about by such an operation.

DISCUSSION.

DR. CUSHING said he had nothing to add to Dr. Knox' very careful review of tendon transplantation, but that one could readily see what extreme interest there must be to a surgeon in cases of this kind. The interest at the operating table is intense—first, watching the readjustment of muscles for the sake of getting new functions in a foot which is without proper muscle, and, secondly, the pleasure of seeing lame individuals made to walk better. When one sees, as we do every day, cases of paralytic club-foot walking badly on the street, we feel that if they are only brought to the attention of surgeons with sufficient emphasis, during the next few years such cases will be rare—in fact, as rare as cases of Potts disease are to-day.

DR. FINNEY said that it is a most interesting subject, one comparatively young, and in which there is a great field for development; also, the methods which are in vogue at present must be tested by the great rule of time to try their efficiency, and even these methods are undergoing constant change. It certainly offers a most interesting field for the surgeon and a most helpful one for the patient.

TREATMENT OF ACUTE OTITIS MEDIA FOLLOWING INFLUENZA.

DR. THEOBALD wished to speak especially of the abortive treatment of these cases when one could see them in the earliest

stage. Every one knows that many serious cases of ear disease have followed influenza, and a larger number than usual have involved the mastoid process, also many the bone in the neighborhood of the tympanic cavity.

The statistics which Dr. Bacon gives bearing upon this subject are very interesting. A few years ago from twelve to twenty cases of mastoid disease were about the average number met with at the New York Eye and Ear Infirmary; in 1896 there were 135 mastoid operations; in 1897 there were 161, due to the prevalence of influenza and the great number of serious ear cases which have followed it.

The most serious involvement is when the brain is affected. The brain, as secondary to suppurative trouble of the middle ear, may be involved in several ways. Epidural abscess is one of the more common forms of purulent meningitis; abscess of the brain substance itself is another, and thrombosis of the lateral or sigmoid sinus is still another.

In reference to infection of the middle ear, he said there are several ways in which the tympanic cavity and mastoid cells may be involved in this affection, as in others types so common, such as scarlet fever and measles, the most common being through the Eustachian tube. Nature has provided an arrangement to lessen the likelihood of this occurring, the ciliated epithelium of the Eustachian tube acting to prevent the entrance of bacteria from the nasal cavity to the middle ear, but it is only partially successful. The middle ear is also not infrequently involved through perforation of the tympanic membrane, the entrance in that way being through the blood vessels or lymphatics. Various organisms have been found in the suppurative middle ear inflammation in connection with grip and other diseases. *Staphylococcus aureus* and *albus* are frequently found, and are more apt to be present in the milder cases; *pneumococcus* and *streptococcus pyogenes* mark the more serious cases as a rule. The micro-organism which is supposed to be at the bottom of the influenza is occasionally found, but not usually in the suppurative cases without the accompaniment of other organisms. His own experience is that the purulent infection occurs very frequently in middle ear inflammation, either after the perforation of the tympanic membrane (in some instances the infection occurs, of course, after the incision of the

drum membrane) or after the attack has actually occurred, but is not always so. Often on making an incision of the tympanic membrane the discharge which comes through the incision is not purulent but sero-mucous in character, somewhat tinged with blood, and does not contain pus. It is a very difficult matter, even with full antiseptic precautions, to prevent infection after incising the tympanic membrane, the skin lining the external auditory canal not being so easy to get at as that of other parts of the body.

He thought if we could see these cases within a few hours the attack could be cut short. This is to be desired, because if the inflammation runs to the point where an incision of the tympanic cavity is necessary, it is extremely difficult to prevent suppuration.

He then referred to a fatal case of middle-ear disease. The patient had had influenza and was afterward exposed to cold. On Friday evening she was taken with earache and suffered severe pain; the next day she was given morphia rather liberally, and on Sunday she began to show symptoms of muscular irritation, with something like spasmodic movements of the limbs. On the following evening she was entirely unconscious, with a temperature of 105 deg. and a very rapid pulse. There was no reason to suppose that the mastoid process was involved, and but little optic neuritis, so that he decided there was nothing for him to do, but that an operation upon the brain itself might be necessary. Dr. Finney was called, but decided that it was too late to take any operative steps.

This, of course, is an extreme instance of what may happen with suppuration of the middle ear, the patient being taken Friday evening and died on Tuesday forenoon. If we can then abort these cases, it is most important to make the attempt, and make it very early.

Dr. Theobald's plan of treatment is to use, promptly, in the ear a solution of atropia. To this he has added recently cocain, giving one grain atropia sulphate and two grains cocain muriate in two drachms of distilled water, about eight drops being poured into the ear three or four times a day, according to the pain. Several years ago, after consulting with Messrs. Hynson & Westcott, he had prepared an oily solution with the alkaloids of atropia and cocain, which has certain

advantages. The oil remains in contact with the tympanic membrane and walls of the canal better than the watery solution, and where there is a small perforation it does not find its way so readily into the middle ear, to produce more constitutional effects than are desirable. With this local treatment which he has prescribed he often combines the administration of small doses of calomel until it produces the desired effect upon the bowels, or, failing to get such an effect, he follows it up with a saline cathartic. He has often found it convenient where acute tinnitus is present to give muriate of ammonia in ten-grain doses perhaps four times a day. The pain, of course, is not always relieved by the local anodynes, and then it may become necessary to supplement them with morphia. It is not safe, of course, to wait indefinitely for the action of this remedy, but he is sure he waits longer than some would before incising the tympanic membrane. Not infrequently he uses the local treatment, when many others would be called upon to incise the tympanic membrane; he may even find some bulging, and yet feel warranted in treating the case in this way. If the pain is not overcome, and there is evidence that the tympanic cavity is distended, free incision should be made, and preferably through the posterior portion of the membrane. One does not make a small puncture, but makes a liberal incision, beginning in the upper posterior border and carrying it down parallel with its posterior margin. After this has been done syringing out with an antiseptic solution like boracic acid two or three times a day is adopted, and if this treatment does not promptly bring about a change a weak solution of bichloride, from 1-8000 to 1-4000, is used. The effect upon the hearing is not usually disastrous, even in the more serious cases, and in the less severe cases we expect the normal hearing to be restored.

DISCUSSION.

DR. REIK wished to add a few words as to the treatment of these cases. He believed in free and early incision of the tympanic membrane; but, where it is possible to adopt the conservative line of treatment as given by Dr. Theobald, he would, in addition, make use of the local extraction of blood, either by natural or artificial leeches applied over the mastoid region. He had tried this a number of times during the recent epidemic of

grip (he thinks these cases have been much more common this year than in the former epidemics), and had been pleased with the result. In many cases the cocain and atropia seem to have little or no effect upon the pain, but a few minutes after leeching the pain disappeared and the patient went to sleep.

DR. THEOBALD said there was no question as to the value of local extraction of blood in these cases, especially in the more severe attacks.

DR. FINNEY said that when he saw the patient Dr. Theobald had referred to she was comatose, with a pulse that could hardly be counted, and a temperature of 105 or 106 deg., and utterly beyond operative treatment. No evidence whatever could be obtained that would aid in the localization of the trouble, and even if the location of the trouble could have been ascertained, at that time there could have been no operative interference.

He referred to a similar case, but with a more happy termination. About ten days after she had apparently recovered from grip the patient was taken with earache in the right ear. She noticed some slight discharge on the pillow, but the physician was unable to find any discharge from the ear, nor was there any from either ear when seen by Dr. Finney. The patient was stupid and dull, different from her usual manner; could be roused to answer questions intelligently, but had to be shaken, and upon pressure upon the right mastoid she evinced some pain, though nothing else seemed to disturb her. There was no evidence of swelling or redness or other mastoid trouble other than history of headache on that side and some tenderness. He thought it best to open the mastoid cell, and did so, but found it empty, and no evidence of trouble so far as he could detect. He continued the opening in the bone until the lateral sinus was exposed, and this he punctured. It bled very freely, and he was quite convinced that the lateral sinus was not thrombosed, at least. He drained the wound, and the patient made a rapid improvement and is now entirely well.

A HITHERTO UNDESCRIBED PEPTONIZING MICROCOCCUS CAUSING ULCERATIVE ENDOCARDITIS.

DR. HASTINGS related the history of a case of ulcerative endocarditis, from which Dr. MacCallum secured the organism in question.

DR. MACCALLUM said the autopsy revealed endocarditis of the aortic and mitral valves, both of which were covered with vegetations. The organism is a small micrococcus, appearing in pairs for the most part; is not motile, and stains well by Gram's method. It somewhat resembles the diplococcus lanceolatus, and is not a profuse grower. It grows best upon glycerin or glucose agar. In litmus milk it first discolorizes, then coagulates, and peptonization and digestion of the clot follows. This appears to be a new organism not hitherto described, and Dr. MacCallum suggests for it the name of diplococcus zymogenes.

DISCUSSION.

DR. FLEXNER thought there could be no question that this is a new organism. Although it resembles some of the known forms, yet its differences are greater than its resemblances.

DIARRHEA IN THE STRANGULATION OF HERNIA.—Dr. Th. Baron, in the *Deutsche Medizinische Wochenschrift*, July 4-98, and *Deutsche Medicinal Zeitung*, 16th January, 1899, relates the following:

Patient, *æt.* 43, fell suddenly ill with vomiting and gastrodynia. Besides, she felt pain in the right inguinal region, where she felt a tumor which did not exist before. The same day she had four stools, the last toward evening, becoming thin-pulplike. Dr. B. diagnosed incarcerated hernia, and, on account of the diarrhea, of the omentum or the intestinal wall. Taxis-experiment proving unsuccessful, herniotomy was therefore resorted to on the following day. No omentum lay in front, but only the intestine. There was a full loop of intestine but no enterocele. The incarcerated portion of the intestine was, it is true, of a strong cyanotic color, but yet of a smooth surface, and could, therefore, be replaced in its original position after the widening of the hernial sac. Healing occurred, *per primam*. To explain the diarrhea in this case, several hypotheses are mentioned by Dr. B., the most probable being that patient was suffering from acute enteritis, in the course of which, by increased peristalsis, incarcerated hernia may take place, as has been numerously shown by experience. Anyhow, this case shows again that evacuation of the bowels, and even diarrhea, do by no means argue against the diagnosis of strangulated hernia

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

THE STATE MEDICAL AND THE HOSPITAL ALUMNI SOCIETIES.

In line with the suggestion of a correspondent, made last month and endorsed by the JOURNAL, to postpone the next meeting of the Louisiana State Society until during the State Fair, the president, Dr. G. A. B. Hays, has postponed said meeting until the second week of the Fair, fixing it for May, 16, 17 and 18. As the Charity Hospital Alumni Association had at its last yearly meeting decided to hold its session on the day preceding that of the State Society, their meeting is *ipso facto* changed to Monday, April 15. We believe this action of the Alumni Association was wisely taken, as the successive sessions will be attended by many who would have had to choose between the two, or who might not have attended either, but will be attracted by the inducements of both together.

The decision of President Hays, taken after consultation with many members, is also wise, for it will lead to a further increase in the attendance by the addition of those who will appreciate the attractions of the Fair and the advantages of reduced rates of transportation.

With due respect to those of the officers and members who are responsible for it, we must confess that there is another advantage in the postponement: We were not properly prepared for a meeting of the State Society this month. There has not been sufficient activity in most of the sections and committees and a sufficient interest has not yet been stimulated in behalf of the coming meeting.

It now behooves those interested to take advantage of the respite. There is yet time if the work is taken earnestly in hand. The last few meetings have been very successful, and this one must even surpass them if possible. A determined effort must at least be made to keep up the standard.

VACCINATION.

The general prevalence of small-pox over the Middle and Southern States indicates the urgent need for precautionary measures against its further spread.

Quarantine effects only a partial protection and this measure would have to be of such wide application that its usefulness would probably be questionable when the attendant disaster and discomforts are considered. Besides, the period of incubation of small-pox and its prevalence in the majority of cases among negroes would make quarantine of doubtful efficacy, when it is considered that this class of people travel more afoot than by public conveyance. Vaccination has prevented epidemics in the past and we have no reason to believe that this procedure is of less value as a preventive to-day.

It is not the part of wisdom for the medical profession to alarm the lay public, but it is within the province of our profession to intelligently advise our clientèle upon questions of public health.

Theories as to vaccination are numerous, both as to the value, its method, the duration of its effectiveness and as to the efficacy of its protective importance.

Notwithstanding these differences of opinion, vaccination under proper conditions of cleanliness is usually free from accident, and it has the historic and statistic value of preventing the epidemic spread of the disease of small-pox.

We are making these arguments solely with the object of urging upon our readers the advisability of quietly ascertaining where vaccination or revaccination may be needed, to suggest that the procedure be applied in anticipation of a possible necessity for it.

The New Orleans Board of Health, at this writing, has successfully prevented the spread of small-pox in this city, by promptly sending all suspicious cases to the detention hospital, and by adopting a systematic house-to-house inspection and vaccination in the districts where cases have occurred.

This method has always saved the public heretofore, as it has this time. In private practice the same general method is advisable, for with cases of contagion in the outlying country districts in this and neighboring States, the exposure of the individual is constant—in public places, in conveyances, whether in traveling abroad or in the city limits.

Medical News Items.

DR. JUSTIN HEROLD, who contributes the first article in this number of the JOURNAL, is particularly fitted for this branch of medicine from his literary proclivities and his work in late years.

The article is based on personal observations made during a long service as coroner's physician in New York City, an unusual field for such a study.

Dr. Herold is identified with medico-legal work in New York and is a prominent member of the New York Medico-Legal Society. Among a number of productions, his work on Legal Medicine, not long out, stands prominent as a standard work on this subject. The JOURNAL feels a degree of satisfaction at being able to present the article beginning in this number, which will continue through the next two numbers. Appreciating the value of the article, the JOURNAL has decided, upon its complete publication, to issue the same in book form at a nominal cost of twenty-five cents, so that it may be accessible for reference in the hands of those who feel an interest in keeping posted upon so vital a question.

THE TEXAS STATE MEDICAL ASSOCIATION meets this year at San Antonio, on April 24 to 27. The president, Dr. J. T. Wilson, of Terrell, has issued a stirring circular, urging attendance. The appeal is worthy of quotation in part as applicable to our own State society in Louisiana:

"This should be the representative medical body of Texas. Every regular, ethical physician within its borders should be a member. It is a duty he owes to himself, to his State and to his profession. It is of utmost importance that the medical profession of Texas be thoroughly organized. It can have no standing or influence in public matters concerning medical subjects without such organization. *Every self-respecting physician should feel a pride in helping to keep his own State in line with any other State in medical progress.* * * *

"Come view the spot where Ben Milam, Travis, Bowie and Crockett, with their little band of matchless heroes sacrificed their lives on the altar of Texas independence and shed im-

perishable renown upon Texas valor. The Alamo with its bloody history still stands a monument to more than Spartan heroism. In this historic old city let the profession of Texas make its pilgrimage in April next and kneel with reverence at the shrine of Scientific Medicine.”

THE STATE BOARD OF MEDICAL EXAMINERS met in New Orleans on March 21, and effected an organization, with the new members recently appointed, Dr. Felix Larue, of New Orleans, and Dr. T. G. Ford, of Shreveport, present, in addition to Drs. Cocram, Trahan and Barrow. Dr. H. S. Cocram was elected president, Dr. A. F. Barrow, vice president, and Dr. Felix Larue, secretary.

The examination of applicants for medical licenses was fixed for May 1, in New Orleans. An energetic policy was outlined, and the new president promises to enforce the sections of the act referring to illegal practice and to prescribing druggists. The JOURNAL has always been with the board along this line, and hopes that the effort at reform may not die with the promise.

THE LOUISIANA STATE BOARD OF HEALTH is active in preventing the possible introduction of yellow fever by railroad into this State. Not only by circulars—general, individual and specific—but by sending its representatives to various points of possible entry, the board has already thrown safeguards around New Orleans and Louisiana. The Marine Hospital Service has been kept advised in a very active way of the steps taken by the board, and its aid and interference has been called for where needed.

THE AMERICAN DERMATOLOGICAL ASSOCIATION will meet at Hotel Walton, in Philadelphia, on May 30 and 31.

THE CENTENNIAL MEETING OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND will take place at McCoy Hall, Johns Hopkins University, on April 25 to 28, 1899. The association of the faculties in the several medical institutions in Baltimore promises a very interesting meeting.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION has Dr. G. H. Simmons, of Lincoln, Nebraska, as its new editor,

he having been elected by the Board of Trustees of the Association.

THE LIVERPOOL SCHOOL OF TROPICAL DISEASES has been established with a view of familiarizing English and other practitioners with this group of affections; laboratory and other facilities are provided. Professor Boyce, University College, Liverpool, will furnish additional information.

A BOARD OF EXPERTS has been appointed by the State Board of Health, composed of Drs. T. S. Kennedy, Ernest S. Lewis, F. Loeber, Rudolph Matas, F. W. Parham, and L. F. Salomon. These gentlemen accepted the office with the distinct understanding that the mission of the board of experts is diagnostic exclusively and not to assume the functions of official sanitarians of the city or State.

THE COMPETITIVE EXAMINATION FOR INTERNESHIP AT CHARITY HOSPITAL resulted in the following appointments: Messrs. C. W. Allen, L. C. Chamberlain, J. A. Danna, S. M. D. Clark, A. B. Granger, R. C. Kent, J. S. Herbert, Jr., J. P. Leake, J. P. Patterson, B. A. Terrett, A. J. Thomas.

PLAQUEMINE NOW HAS A LOCAL BOARD OF HEALTH, the police jury having appointed the following gentlemen to serve on same: Drs. G. W. Owen, F. J. Kearney, and W. A. Holloway, with Messrs. O. Richard, W. Thiery, D. H. Walsh, N. H. Knowlton and J. B. Woolfolk.

DR. HENRY E. MENAGE, it is announced, will go to the Philippines with the Sixth Infantry, to which he has for some time been assigned.

DR. T. F. RICHARDSON, of New Orleans, recently successfully and brilliantly passed the examination for the Marine Hospital Service and is now stationed in New York City.

DR. MARIE J. MERGLER has been elected dean of the Northwestern University Woman's Medical School, in place of Dr. I. N. Danforth, resigned, who has been elected dean emeritus.

THE ORLEANS PARISH MEDICAL SOCIETY OFFERS A GOLD MEDAL to be competed for at the coming State Fair by exhibitors of surgical instruments and apparatus.

THE COMING AGE is to publish, in its April number, a paper by Prof. John Uri Lloyd, entitled "Do Physicians and Pharmacists Live on the Misfortunes of Humanity?" With such a title the article should prove interesting reading, as the questions possible for discussion are certainly many. The magazine mentioned is published at 506 Olive street, St. Louis.

CHRISTIAN SCIENCE IS NOT LIKELY TO THRIVE IN OKLAHOMA, as both houses of its Legislature have, by bill, prohibited its practice in the Territory.

THE MEDICAL DEPARTMENT of Tulane University of Louisiana will hold its commencement exercises May 3 this year, owing to the fact that the season was opened later than usual. The department has had a prosperous year and its graduating class is likely to be a large one.

THE NEW ORLEANS POLYCLINIC has also had a prosperous season and will close its session on May 19, until Fall.

MORTUARY.—Dr. A. C. Simonton, of Vernon, La., died at his residence on March 6, 1899, at the age of 67 years. He was the father of Dr. A. E. Simonton, also of Vernon.

Dr. Thomas J. Heard died at Galveston, Tex., March 8, 1899, in his eighty-fifth year. A native of Georgia, he had lived in Texas since 1837, where he had been prominent for many years

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

SOME PRACTICAL POINTS IN STEAM STERILIZATION.—Theodore Dunham, in the *Medical News* of March 4, gives some experiments of interest to all who are accustomed to employ steam in the sterilizing of surgical materials. He relates a number of experiments in two series. He states at the beginning a few facts in the physics of heat: that steam has a much lower specific gravity than air; that air is a poor conductor of heat; that air will not condense except at an extraordinarily low temperature and high pressure; that steam will condense at once on coming in contact with a cooler body, and will give up its latent heat to that body. These qualities make steam a perfect vehicle and air a very poor one for conveying heat. By the first series of experiments he showed that in a sterilizer the steam should enter at the highest point and the air find its exit at the lowest point.

In the second series he determined the effects of pressure. It was found that a pressure of 20 pounds above the 15 pounds of the atmosphere gave no assurance of a high temperature at the bottom of the sterilizer unless the air was expelled. To determine when the air was all out he attached a tube to the air-cock and let the air bubble up through water; the air being exhausted, the bubbling of course ceased and a water was established making a noise like the explosion of a bunch of fire-crackers.

The best sterilizer, therefore, is one which will let the steam in at the top and the air out at the bottom. The air being all out, the thermometer will indicate a temperature throughout the sterilizer of steam at the pressure indicated by the gauge.

A SUGGESTION FOR LATE SECONDARY SUTURE OF WOUNDS.—Egbert Braatz, of Königsberg, describes in the *Centr. für*

Chir., of January 28, a method likely to prove useful in the closure of wounds which ought not be united at the time of operation. The method consists simply in passing a needle threaded double through each side separately of the wound, in such a manner that the loop will be down in the bottom of the wound and the two free ends out on the skin. As many as required are thus put in. We would then have a series of sutures on each side of the wound. One of the free ends of each is now passed through its corresponding loop and tied to its fellow. It will be seen that no thread passes across the wound, so that all sutures being secured any necessary manipulation may be carried on in the wound without fear of dislodging the thread and with as much freedom as if no sutures were in. Later, when it is desired to close the wound, a single thread, silk, salmon gut, wire or what one likes, is passed through any two opposite loops. The knot is released by cutting one thread on the skin for each loop, and both free ends being drawn on, the single thread engaged in the loops is pulled through and tied. If silk be used it should be pulled through wet, as it slips more readily.

Braatz does not mention this, but it is evident that in any wound such loops may be placed for use as retractors during the operation and for pulling through the sutures when the operation is finished.

It seems superior to Nussbaum's and all other plans as yet suggested, in the knowledge of the writer of this abstract.

AN IMPROVEMENT IN LAUENSTEIN'S WATCH SPRING FOR THE PASSING OF THE GIGLI SAW.—Lauenstein describes in *Centr. für Chir.*, January 28, 1899, a very valuable addition to his previous suggestion of the watch spring for guiding the Gigli (or wire) saw from one trepan opening to another, for doing osteoplastic work in the skull. This consists in attaching to an end of the spring in the concave side a small "roll," arranged similarly to the wheel on a wheel-barrow. This being pushed along naturally springs through the next hole when reached, making its finding much easier than by his first method. This improvement facilitates very much the passing of the watch spring in those cases where, owing to intra-cerebral pressure, the dura is very tense, resisting the unguarded end of the spring. When

the skull is very thick the exit of the "roller" at the next opening is made much easier by beveling (as suggested by Zander, of Bethesda) the margin nearest, at the expense of the inner table.

This seems to us very ingenious and is at the same time very practical and worthy of adoption by all surgeons who use the wire saw of Gigli.

Department of Obstetrics and Gynecology.

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

CURETTEMENT IN PUERPERAL FEVER.—Henry Perey raises the question as to whether the uterus should be curetted when there is an acute inflammation of the adnexa (acute puerperal parametritis) with or without abscess formation. He says that the opinion of specialists is very divided on this question. While some recommend abstaining in cases of abscess of the adnexa, believing that the curette only spreads the infectious germs, others, far from abstaining, advise curettement. Thus, Berlin, of Nice, is very categorical on this point and says: "I have for my part often curetted patients whose adnexa were painful, and others who manifestly had foci of perimetritis; what I can say is that in these cases where there is a pre-existing lesion of the adnexa, I have never seen curettement the cause of the slightest septic complication."

Professor Rapin believes that when there is inflammation of the adnexa, curettement is not to be advised; it is only exceptionally that it is to be employed, when, for example, there is a retention of the placenta, and using it with extreme prudence. He has employed and seen it employed in several cases of inflammation of the adnexa, and if in the majority of these cases the operation had no bad results it certainly did increase the symptoms.—*Annals of Gynecology and Pediatrics.*

IN CASES OF UNAVOIDABLE HEMORRHAGE due to placenta previa, Lawson Tait advocates hysterectomy. The operation, he says, had many arguments in its favor in the case reported. It would save the child; it would probably save the mother and relieve her of the perpetual misery and risk in which she had lived for years.—*N. Y. Medical Record*.

DYSTOCIA DUE TO "ACCIDENTAL HEMORRHAGE."—Warren, in the course of an article on this subject, remarks that the symptoms of accidental hemorrhage vary with the amount of detachment and hemorrhage, from that condition of the patient in which the obstetrician feels only intuitively that something is going wrong, but can not prove it, to fatal collapse. If the placental separation or the symptomatic external flow is slight, the accident is not usually recognized until the uterus is emptied. Then the presence of unusual clots or excessive flooding might suggest it and examination of the placenta confirm it. These are the cases of the "mild" variety of Goodell. Sometimes the initial symptom is sudden and unexplainable (flooding) following an injury, or while sleeping; there is severe abdominal pain and a feeling as if the womb would burst. The abdomen and uterus grow larger and larger and increasingly tender. Further corroborative signs are irregular contour of the uterus, absence of fetal prominences and heart sounds. Vaginal examination shows that the cervix is open a little, through which the membranes are bulging, and that the placenta is not presenting.—*American Journal of Obstetrics*.

PESSARY MATERIAL.—Sprigg (*American Journal of Obstetrics*) contends that hard rubber is the best material for pessaries, and uses almost exclusively the modified Hodge pessary. Whether a pessary accomplishes a purpose or not is to be judged by its ability to maintain the uterus in a normal position without undue pressure, or the production of pain or discomfort. When a pessary is first introduced, the vagina should be examined at the expiration of one week, even if the patient feels comfortable; and if too much pressure is being exerted the instrument must be removed and corrected. Fritsche of Halle has declared that it is easier to perform a laparotomy than to apply a pessary. The uterus must be brought into the normal position; then, and not till then, should the pessary be applied.

ANTISTREPTOCOCCIC SERUM IN PUERPERAL FEVER.—F. J. Cotton states that no one, after a careful review of the results of antistreptococcic serum, will contend that the serum is, broadly speaking, effective against streptococcus infections. There seems, however, sufficient grounds upon which to give the serum further trial—as a symptomatic treatment, if no more. No good reason has been advanced why it should not be used. Urticaria, erythema, joint pains, etc., are of not uncommon occurrence, but of no grave moment. The administration of the serum in considerable doses is advocated, and it is suggested that in many cases the dosage has been too small. Many cases have borne twenty-five cubic centimeter doses, but the dosage must vary in individual cases. In one case of some duration a total of 1030 cubic centimeters was administered without ill effects beyond an erythema. The serum should be carefully selected, as the potency of different makes varies, and it seems to lose by keeping. Until further evidence of its potency is forthcoming it can be used as an adjunct only, and can never supplant or modify other treatment.—*Boston Medical and Surgical Journal*.

FOR OBSTRUCTED LABOR AT TERM.—Polk (*Medical Record*) advocates suprapubic hysterectomy with intra-peritoneal treatment of stump. The Porro operation is preferred. Celio-hysterectomy is more dangerous than extirpation because of the greater liability of sepsis, and the inability to accurately close the uterine incision in consequence of the fragile tissues. If coaptation of the edges of the uterine tissues is not perfect a leakage of virulent poisons into the peritoneal cavity occurs which generally causes a fatal issue. The amount of shock produced and the time consumed are practically the same in both operations.

Department of General Medicine.

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

AS TO THE INCUBATING STAGE OF PERTUSSIS AND A HITHERTO UNRECOGNIZED SYMPTOM THEREOF, Dr. H. Illoyay, of New York City, reports two observations of pertussis in which he noted a

slight hacking cough, appearing and lasting in the first case four weeks, and in the second two weeks prior to the catarrhal period of pertussis; both children feeling well otherwise and examination disclosing nothing; no temperature. Attention is drawn to this symptom as bearing on the incubating stage, prognosis and treatment of pertussis. "If the hack be what is claimed for it, the conclusion is inevitable that the period of incubation is a much more protracted one (two to four weeks) than is commonly accepted; and further, that it is not the same in all cases. Thus, it was of four weeks' duration in the first case, while in the second it did not last longer than fifteen days."

From a prognostic standpoint it is stated that in the first case with the long period of incubation, the disease was of long duration and of great severity, taking the patient nearly a year to recover fully from its effects, while in the second case, with a much briefer period of incubation, the sickness lasted no longer than the ordinary short period and was very mild in character, the patient's general health not being visibly affected thereby.

From a therapeutic standpoint the author writes: "Quite a number of years ago some pediatricists and others attempted to cut short, to jugulate, the disease by the topical application, by means of insufflation of powders chiefly, of agents having anti-septic and germicidal properties. As was to be expected, the efforts were fruitless. However, if the conclusions drawn by me from the observations here reported are verified by the repeated observations of others, assuming that the investigations of Koplik—that a specific bacterium is the cause of the disease—are unassailable, we might, with the early investigation of the disease, or rather its beginning, at a period when the causative factors are as yet but few in number and their action still but a local one, attempt to arrest at once the further progress of the infection and thus cut off the disease by the local application of the well-known bactericidal agents, either by insufflation or by means of the applicator."—*Pediatrics*.

GERMAN STUDIES OF MALARIAL DISEASES.—Dr. Koch has recently left Rome, after six weeks of study in the hospitals where are treated cases of Roman and Campagna fevers, and in which he has been aided by the foremost specialists of Italy.

As a result of these studies, it is now declared that the malarial fevers of Italy are identical in cause and general character with those of East Africa, and it is believed that science is on the eve of a decisive victory over this whole group of maladies by means of liquid injections of quinin into the pulse vein.

Among the other interesting deductions of Professor Koch, is his freely expressed opinion that the indiscriminate use of quinin as a prophylactic in malarial countries is attended with great danger, and is in many cases the indirect cause of the pernicious "black-water" fever, one of the most virulent forms of malarial disease.

"The very general practice among persons coming from temperate to tropical latitudes of saturating their systems with quinin, taken in regular and often excessive doses, is vigorously condemned for two reasons: First, because it seriously weakens the action of the heart; and, second, because the system, having become inured to the drug, fails to respond to quinin treatment in case of actual sickness. The efficiency of the drug having been exhausted as a preventive, it has no longer any important value as a remedy, and experience shows that a person debilitated by the excessive use of quinin may take malarial fever and die of it like any one else. Professor Koch even goes so far as to assert that the increased death rate in certain portions of West Africa, where the conditions of living have been greatly improved during the past ten years, is due largely to the increased and indiscriminate use of quinin, caused by its greater cheapness and the ease with which it can now be obtained. He also states that on the western coast of Africa, where all forms of malarial fevers are especially virulent, cases of the intermittent type, which have resisted even heroic doses of quinin, have been mastered by the use of arsenic. It is well, however, to remember in this connection that a certain antipathy to quinin and a preference for arsenic as a remedy for certain fevers is a marked and well-known peculiarity of the German school of medicine, in respect to which its opinions are in sharp disagreement with those of physicians in some other countries, notably the United States."—FRANK H. MASON, Consul General, Frankfurt, in *The Sanitarian*, February, 1899.

TREATMENT OF TETANUS WITH INTRA-CEREBRAL INJECTIONS OF ANTITOXIN.—For a long period, physicians were deprived of

almost any means at all of combating tetanus, at least in its acute form. In recent years some advance was gained from the very complete study of experimental tetanus showing the conditions necessary to make success possible, but still we failed to attain any in the very great majority of manifest tetanus, and while under the antiseptic treatment of wounds the latter has become very rare, it yet occurs pretty often. It is therefore natural that the new method proposed by Roux and Borrel at the Congress of Madrid should have received at once such a great favor, as it proved successful in the treatment of manifest tetanus. Indeed, from their very precise and convincing experiments it was evident that the intra-cerebral injections of antitoxin in animals presenting tetanic symptoms brought about actual good results. It is this method which has already been used in man, several times, that shall be considered here, showing on what experiments it is based, how it should be applied, in what cases it may be used successfully, in what cases it must fail, its value notwithstanding this, remaining intact from the experimental and clinic standpoints.

I. *Experimental Researches.*—Since the time the experimental inoculation of tetanus was first practised, in 1884, by Carle and Rattone, that the pathogenic agency was found by Nicolaier, that the bacillus was isolated and cultivated by Kitasato, works on tetanus have multiplied. It is chiefly since 1890, when Knud Faber isolated the tetanic toxin which in the following years Vaillard and his collaborators have so thoroughly studied, that the experiments of the laboratory began to act directly on the treatment of tetanus. From that time on it was learned that not only the suppression and disinfection of the foci where the tetanus bacilli were located and at work elaborating their toxin, that not only the prompt action to repair the nervous cells already damaged were indispensable factors, but it was chiefly of prime importance to neutralize the poison running in the blood, the direct cause of the accidents. So the closest application was devoted to the properties of the toxin and the means of neutralizing it; thus it was that Behring and Kitasato first, Tizzoni and Cattani, Roux and Vaillard next, worked to immunize animals and obtain an antitoxic serum. And indeed they succeeded in reaching positive results; Vaillard in particular,

obtained an antitoxic serum whose preventive action was evident in truly infinitesimal doses.—DR. P. LEREBoullet, in *Gazette hebdom.*, Feb. 12, 1899.

[TO BE CONTINUED.]

Department of Therapeutics.

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

NIRVANIN—A LOCAL ANESTHETIC.—Einhorn and Heinz have introduced a new local anesthetic under this name. Chemically, it is the hydrochlorate of diethyl-glycocoll-para-amido-ortho-oxy-benzoic-acid methyl ester.

It occurs as colorless prisms, readily soluble in water, and yielding a neutral solution. On not very sensitive mucous membranes, a 5 per cent. solution of nirvanin is non-irritating, but the anesthesia is not so deep-seated as to enable painless operations on the deeper layers to be made. When the preparation is injected subcutaneously, however, or applied to wounds or sores, a persistent and complete anesthesia is said to be obtained. It may be injected to the extent of 0.5 gm. (8 grs). A 1 per cent. solution suspends all bacteriologic development, fermentation, etc. For treating wounds or lesions of the eye, the nirvanin may be advantageously combined with cocain, because, alone, it irritates the normal eye too strongly. A 0.2 to 0.5 per cent. solution is considered suitable also for the Schleich infiltration-anesthesia, and a 2 per cent. solution was found to be useful in dentistry.

The new preparation is claimed to be almost non-toxic, as compared with cocain. August Luxenburger (*Münch. Med. Wochenschr.*) has employed nirvanin in atheroma, lipoma, fibrolipoma, etc., in $\frac{1}{10}$ to $\frac{1}{5}$ per cent. solution, and effected complete analgesia. The period of analgesia, it was found, could be varied according to the strength of the solution employed, and varied from five minutes with a $\frac{1}{10}$ per cent. solution, to twenty-three minutes with a 2 per cent. solution.—*Merck's Archives*.

THE TREATMENT OF HEART DISEASE IN CHILDREN.—At the last Congress of Gynecology, Obstetrics and Pediatrics, held in

October, 1898, Weill read a paper upon this subject (*Revue de Thérapeutique Médico-Chirurgicale*). In congenital lesions we are utterly unable to do any material good; but in acute endocarditis in which there is danger of the development of severe valvular lesions, preventive medicine can do much. The endocarditis of rheumatism is affected little if at all by the salicylates, yet it is in rheumatism that these lesions most frequently occur. In typhoid fever with a tendency to heart disease the cold bath is exceedingly efficacious as a prophylactic against cardiac lesions. Antidiphtheritic serum is to be used as a prophylactic in diphtheria, and antistreptococcic serum in scarlatina. He thinks salicylate of sodium is of little avail as a direct remedy in rheumatism of the heart, but its use shortens the attack and is thereby of value. It is well borne by children, and rarely produces vomiting, vertigo, or roaring in the ears, if given in the dose of seven grains a day in the first year of life; fifteen to thirty grains up to the third year, and forty to seventy grains at ten years. The diet should also be carefully attended to. Milk, soups, and absolute rest are to be resorted to, the heart quieted if necessary by the use of small doses of bromide of potassium and digitalis, and insomnia, if marked, combated by sulphonal or trional.

To still further combat endopericarditis he suggests inunctions over the precordium, the application of cold, the application of flying blisters, and, if the patient is strong, venesection. Where actual valvular changes exist, blisters over the precordium, or even the application of hot iron, are recommended, and the administration internally of iodide of potassium for fifteen or twenty days in each month in the dose of three to ten grains, given after two meals in a glass of milk. He thinks that about six out of every 100 cases of rheumatism in children die from rheumatic pericarditis, and that after the disease becomes at all subacute we can do little to relieve it.

Should the pericardial effusion become purulent it must be allowed to escape by means of an incision. After a valvular lesion has become chronic it is necessary to improve the condition of the heart muscle by a stimulant and nutritious diet. The patient must be continually in the fresh air. Rubbing must be resorted to to improve the peripheral circulation, and gymnastics, with Swedish movements and hydrotherapy employed. Care must be taken to exercise all the muscles of the body, but not

to tire them, and violent exercise must be absolutely prohibited. Such games, for example, as football and tennis and long walks are not to be permitted. Bicycle riding may be utilized in moderation, but great fatigue must not be allowed. Regular hours must be insisted upon for meals and for retiring. The digestive tract must be kept in good order. Severe mental work ought also to be prohibited. In paroxysmal dyspnea coming on in heart disease, absolute rest, counter-irritation in the form of a mustard plaster over the precordium, and the administration of diffusible spirits, are to be resorted to. Subcutaneous injections of camphor, caffenin and ether are useful, and inhalations of oxygen and nitrite of amyl may be used. Should there be pulmonary congestion with albuminous expectoration, active counter-irritation should be applied to the chest. Should great cardiac excitement be present, digitalis or caffenin may be needed. If cough is present, the administration of sedative substances, such as iodide of ethyl, pyridin, antipyrin and bromoform, may be given. The caffenin may be given in the dose of one to two grains a day to a child of from two to five years, and four to seven grains a day to a child of seven to fourteen years. If it is desired to give it hypodermically, the following solution may be used:

℞ Benzoate of sodium.....	45 grains.
Caffenin.....	30 grains.
Distilled water.....	2½ drachms.

A small hypodermic syringe of this may be given once or twice a day.—*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 Manual of Bacteriology. By HERBERT N. WILLIAMS, M. D., Professor of Pathology and Bacteriology, Medical Department, University of Buffalo. With seventy-eight illustrations. Philadelphia: P. Blakiston's Son & Co.

This work is one chiefly for the beginner or the busy practitioner, the author making little or no claim to originality, and in his preface calling it a compilation. As such, however, it is very good, and in its 250 pages are printed the essential and practical facts of bacteriology. The chapters on germicides and surgical descriptions were written by Drs. Thos. B. Carpenter and Chauncey P. Smith.

P. E. A.

The Essentials of Histology, Descriptive and Practical. For the use of students. By E. A. SCHAEFER, LL. D., F. R. S., Jodrell Professor of Physiology in University College, London. New fifth edition, revised and enlarged, with 392 illustrations. Lea Brothers & Co., Philadelphia and New York, 1898.

This work's popularity is attested by the number of editions it has gone through in a very limited number of years. As an elementary text book on histology it is very good, and as a student's guide in the laboratory it is very useful indeed. The book is divided into forty-six lessons, each one of which can be gone over by a class in from one to three hours, according as more or less of the work is prepared beforehand by the teacher. We cheerfully recommend Schäfer's work to all interested in histology.

P. E. A.

A Text-Book of Obstetrics. By BARTON COOKE HIRST, M. D., Professor of Obstetrics in the University of Pennsylvania. With 653 illustrations. Publisher, W. B. Saunders, Philadelphia.

In the face of the many excellent works on obstetric art it must have required a great deal of courage in Professor Hirst to present to the profession a new book on this subject. But from his many instructive articles which appeared from time to time in the various journals we have been prepared for this treat. And we have not been disappointed in our expectations. Excepting a few deficiencies of no practical importance the book is of that quality which meets all requirements. Dr. Hirst proves himself to be a man of great observation, of conservative views, and possessing unusual facilities as a teacher. It would be superfluous, and should not be expected, for a reviewer to dissect so great a masterpiece on the science and art of obstetrics. It is a school of instruction in itself.

MICHINARD.

Autoscopy of the Larynx and Trachea. By ALFRED KIRSTEIN, M. D., Berlin. Translated by MAX THOMER, A. M., M. D., Cincinnati. Ohio. F. A. Davis Company, Philadelphia, 1899.

The translator has given here not only a very clear, comprehensible translation of Kirstein's original work on autoscopy, but has also added some new illustrations and made such alterations in the text as have been suggested to him by the author. Autoscopy, he considers, is the most important addition to our technical resources made since the discovery of the laryngoscope by Garcia.

According to his description, autoscopy of the larynx is an extremely simple procedure, and not only has it proven a valuable aid in the examination and diagnosis of laryngeal affections, but it is beginning now to be used in the performance of certain intra-laryngeal operations, such as the removal of foreign bodies, tumors of the vocal cords, etc.

As an acquisition to our resources in this line of work it invites our attention.

DE ROALDES AND KING.

An Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M. D., F. R. C. P. Revised and enlarged by H. MONTAGUE MURRAY, M. D., F. R. C. P. New (eighth) American Edition, Thoroughly Revised from the Eighth English Edition, by WALTON MARTIN, Ph. B., M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, Columbia University. Illustrated with 216 engravings. Lea Bros. & Co., Philadelphia and New York.

This work has been greatly enlarged and many changes made in the text of the previous editions. As it is now it is an up-to-date work, full of interesting reading matter and splendidly illustrated. Among the additions, the chapter on some of the animal parasites we consider as of special advantage. We have to admit a certain tender feeling for this work, as its first edition was our first text-book on morbid anatomy. Many times since then we have had occasion to consult the more recent editions, and always we have found things of value in them. We are glad, therefore, to commend this new eighth American edition to all students and practitioners.

P. E. A.

Injuries and Diseases of the Ear. By MCLEOD YEARSLEY, F. R. C. S., London. Rebman Publishing Company, Limited. London, 1899.

This little work is a simple compilation of a series of papers published at different times by the author, who has been induced to have them reprinted in book form. For this reason it is not as complete a treatise as the title would imply, but nevertheless is interesting reading and contains quite a little share of useful information on the subjects treated. The chapters on "The Use of the Pneumatic Aural Speculum" and "On the Care of the Ear in Children" are to be specially commended.

DE ROALDES AND KING.

A Manual of Physiology, with Practical Exercises. By G. N. STEWART, M. A., D. Sc. M. D. (Edin.), D. P. H. (Camb.), etc. Third Edition. W. B. Saunders, Philadelphia, 1899.

The qualities which determine the successful text-book are the clearness of the arrangement and the practical presentation of the material contained. Dr. Stewart has fulfilled both. Incidentally he has added a series of practical experiments to each chapter, fully illustrated, which makes the work valuable to the teacher as well as to the student. Much originality is evidenced in the handling of the various divisions of the subject, and the method, as a whole, is an evidence of the author's experience as a teacher.

DYER.

Primer of Psychology and Mental Disease, for use in training schools for attendants and nurses and in medical classes. By C. B. BURR, M. D., Medical Director of Oak Grove Hospital for Nervous and Mental Diseases. Flint, Mich. Second Edition. Thoroughly revised. The F. A. Davis Company, publishers, Philadelphia, New York and Chicago.

An excellent little work of a little more than 100 pages. It contains the essential principles of psychology and short descriptions of the principal mental diseases. By using it as a text-book and delivering a few lessons on the subjects of which it treats, the teaching in a number of our American medical colleges would be materially improved. And especially so in those colleges where students are granted diplomas without ever having heard a single lecture on Mental Diseases, or having seen or examined an insane person.

P. E. A.

Clinical Lectures on Mental Diseases. By T. S. CLOUSTON, M. D., (Edin.); F. R. C. P. E., Physician Superintendent of the Royal Edinburgh Asylum for the Insane; Lecturer on Mental Diseases in the University of Edinburgh. Fifth Edition. Lea Brothers & Co., Philadelphia and New York.

No book of its size is superior to Cloustone's work on Mental Diseases. This edition is thoroughly revised and is still an improvement on its predecessor. It takes only a rapid perusal of some of its principal chapters to appreciate the fact that it has been written by one altogether *au fait* on the subject—one who has studied insanity not only in books, but also within the walls of a well filled asylum, and all that for a number of years. We do not know of any work which we can more readily recommend to our students and fellow-practitioners than this one.

P. E. A.

Diseases of the Skin: an Outline of the Principles and Practice of Dermatology. By MALCOLM MORRIS, Surgeon to the Skin Department, St. Mary's Hospital, London, etc. New and revised edition. Lea Bros. & Co., Philadelphia, 1899.

The readable style of Dr. Morris' little handbook was first commended in our review of the former edition, and it impresses itself again in reviewing the revision before us.

The absence of emphasis on classification, the strong dependence on pathology and the excellent methods of differentiation are the points of value in the book.

Additions have been made which only add to the service of one of the best text-books extant.

DYER.

Acromegaly. Boylston Prize Essay for the Year 1898, By GUY HINSDALE, A. M., M. D. Reprint from *Medicine*. William M. Warren, Detroit, 1898.

In some eighty pages the author has exhaustively considered every phase of this almost anomalous disease. The illustrations are judiciously chosen, and reflect the care in detail exercised by the author both in his own investigations and in the survey of the work of others.

DYER.

PUBLICATIONS RECEIVED.

Surgical Shock, by Geo. Crile, M. D.—J. B. Lippincott & Co., Philadelphia, 1899.

Transactions of the American Ophthalmological Society, 1898.

Transactions of the Medical Society of the State of North Carolina, 1898.

Tuberculosis or Consumption, by H. H. Spiers, M. D.—Ravenna, Ohio.

Thirteenth Report of the Lunacy Commission of Maryland, 1898.

Diseases of the Skin, by Geo. T. Jackson, M. D.—Lea Bros. & Co., New York and Philadelphia, 1899.

The Light of Reason, by A. B. Franklin.—C. H. Kerr & Co., Chicago, 1899.

Text-Book on Practical Obstetrics, by E. H. Grandin and G. W. Jarman, M. D.—The F. A. Davis Co., Philadelphia, New York, Chicago, 1898.

Diseases of the Ear, Nose and Throat, by Seth S. Bishop, M. D.—F. A. Davis Co., Philadelphia, New York, Chicago, 1898.

Handbook of Obstetric Nursing, by Anna M. Fullerton, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

Diagnosis by the Urine, by A. Memminger, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

Nervous and Mental Diseases, by Archibald Church, M. D., and Frederick Peterson, M. D.—W. B. Saunders, Philadelphia, 1899.

Surgical Nursing, by Bertha M. Voswinkel.—*Retinoscopy*, by Jas. Thorington, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

REPRINTS.

The Use of Gloves in Surgery, by W. R. Lockett, M. D.

Pelvic Suppuration: Procedure, and Plan of Attack—Malignant Disease of the Kidney, by Byron B. Davis, M. D.

Holocain in Ophthalmic Surgery; Its Superiority Over Cocain; Its Therapeutic Value, by Hasket Derby, M. D.

Traitement Chirurgical de Quelques Paralysies Faciales, by E. Moure, M. D., and G. Liaras.

The Serum Treatment of Diphtheria, by William Cheatham, M. D.

The Science of Medicine and its Relation to the People, by Henry Jame-son, M. D.

The Physician in Practice—Medical Education, by Leo. M. Crafts, M. D.

Notes on the Absorption Versus the Digestion of Milk, by L. Duncan Bulkley, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the City of New Orleans.)
FOR FEBRUARY, 1899.

CAUSE.	White	Colored...	Total
Fever, Malarial (unclassified).....	1	2	3
“ “ Intermittent			
“ “ Remittent		1	1
“ “ Congestive.....	4		4
“ “ Typho			
“ Yellow			
“ Typhoid or Enteric.....	6	1	7
“ Puerperal	1		1
Influenza.....	40	18	58
Measles			
Diphtheria			
Whooping Cough	1	3	4
Apoplexy	15	8	23
Congestion of Brain.....	5	2	7
Meningitis	12	4	16
Pneumonia.....	52	43	95
Bronchitis	15	12	27
Cancer.....	9	3	12
Consumption.....	51	35	86
Bright's Disease (Nephritis)	34	11	45
Uremia	4		4
Diarrhea (Enteritis).....	9	9	18
Gastro-Enteritis	2	1	3
Dysentery.....		3	3
Hepatitis	1		1
Hepatic Cirrhosis	3	3	6
Peritonitis.....	1		1
Debility, General	1	2	3
“ Senile	31	18	49
“ Infantile	4	4	8
Heart, Diseases of	36	17	53
Tetanus, Idiopathic			
“ Traumatic	4	1	5
Trismus Nascentium.....	7	4	11
Injuries	20	14	34
Suicide	3		3
All Other Causes	81	47	128
TOTAL	453	266	719

Still-born Children—White, 13; colored, 16; total, 29.

Population of City (estimated)—White, 210,000; colored, 90,000; total, 300,000.

Death Rate per 1000 per annum for month—White, 21.57; colored, 29.55; total, 23.96.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure.....	30.09
Mean temperature	49.00
Total precipitation.....	2.93 inches
Prevailing direction of wind, north.	

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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No. 11.

Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of 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.]

SIGNS AND TESTS OF DEATH.

BY JUSTIN HEROLD, A. M., M. D., NEW YORK.

Formerly Coroner's Physician of the City and County of New York; Late House Physician and Surgeon of Saint Vincent's Hospital, New York City; Member of the New York County Medical Association, New York County Medical Society, New York Medico-Legal Society, New York Society of Medical Jurisprudence, New York Academy of Medicine, German Medical Society of the City of New York; Author of "Herold's Legal Medicine."

[CONTINUED FROM APRIL NUMBER.]

(d) *Opening of an Artery.*—In the series of tests made on the 7900 bodies of the dead, I cut down on the radial or temporal arteries in 1572 instances. As is well known, blood from any ordinary cut or wound in the living subject will coagulate on exposure to air, whereas the blood from the dead subject is watery and limpid, and does not coagulate. Feeble muscular contractions of the heart will cause the blood to flow to the radials and temporals, even when there may be no pulse perceptible, and I hold that the opening of the radial or temporal arteries will demonstrate infallibly, and without doubt, the existence of the least life in the human body. The arteries of a dead person are likened to empty india-rubber tubes; if there be any circulation at all, no matter how slight it may be, blood will be found in the arteries, pumped there by the heart muscle. No cataleptic or trance subject, no person in profound sleep, nor with suspended animation, could exist for more than one hour

with an artery exposed and open, so that the blood could flow from it. This is a certain and infallible test, and in my opinion should be practised on the bodies of all dead persons. The first incision would prove life or death, during the process of embalming. The very operation of forcing the embalming fluid into the body precludes any danger of forcing it into the arteries of a living person, for blood certainly would flow from the arteries as soon as they would be opened, and here the operation of embalming would cease. The arteries of the dead are empty and nothing flows from them when they are opened; the embalmer takes this as a sign to proceed and he does so. The arteries are pale or yellowish, and completely empty after death; during life, the arteries pulsate, and they have the color of the tissues surrounding them. In cases where the arteries have become rigid from any diseased process this latter condition does not obtain. If the heart be beating, section of any artery, preferably the radial or temporal, would be followed by a spurt or flow of blood. I hold this to be the most reliable test of the condition known as death. No better test can be employed; as an immediate and satisfactory test the cutting of an artery is supreme. Especially is this the case after auscultation of heart and lungs reveal nothing.

(e) *Cloquet's Needle Test*.—This test is the one in which needles are employed by being thrust into the muscles. A clean, bright needle is used for this purpose, the theory being that if the needle is stuck into the muscles of a living body, it will rapidly oxidize, rust or tarnish, but if the needle is thrust into the muscles of the dead body, it will neither become oxidized, rusty or tarnished. This applies also to the fact that if the needle is left in the tissues of the living body but an instant, it will be affected the same as if it were left there for hours, whereas if it be left in the tissues of the dead body for hours, no effect will be noted—on the contrary when removed, the needle will look as bright as when thrust in. In making this test it has been noted that much depends on the extent of the cooling of the dead body. I used this test in 202 of the 7900 cases, and in twelve instances the needle became oxidized on its removal, showing conclusively that the test is worthless. I preferred the biceps muscle in my tests, and in all the cases plunged a bright, steel needle deeply therein.

(f) *Fluorescin Test.*—A hypodermic injection of fluorescin, under the skin, will, if a person be alive, be distributed over the body, but if it is used on the dead body, only the space about the spot where injection is used will become colored. Fluorescin is a substance used for purposes of dyeing, and is a very powerful coloring matter; a milligramme is sufficient for the test. This test is an almost unnecessary one when other tests are considered, in determining the existence of the circulation; it was used by me in seventy-two cases, and in all there was a spot of color around the hole made by needle.

(g) *Monte Verde's Test*—Injection of Ammonia.—If during life a solution of ammonia is injected under the skin, a mark or congestion of a port wine color is set up in the surrounding tissues, no such color appearing when the same solution is used in the same manner in the tissues of the dead body. This test in my experience has not always resulted in a positive manner. In 197 cases I injected a solution of ammonia into the tissues of dead bodies, some rigid and partly decomposed among them. In those dead but a very short time, as regards circulation and respiration, the port wine mark was as evident as if they were alive. In twenty-seven of my cases I noted the port wine congestion mark, although the radial had previously been divided. But it was noted that the longer life had been extinct, the less apparent became the so-called port wine mark; in this manner data could be collected from which one could formulate the time which had elapsed since life ceased. In some of the cases it was a dark brown, in others a dirty brown color, depending entirely on the length of time since dissolution began. If ammonia be injected in the tissues of the living body, the discoloration produced is of a distinct port wine hue—this is claimed as indicative of life: whereas the dirty brown stain is said to indicate the beginning of decomposition in the tissues. The absence of the red blotch under the skin after the subcutaneous use of a solution of ammonia may be taken as a sign of death, providing the test is made some hours after death. This test I can not look upon as reliable unless rigidity or decomposition were present, in which cases no such test is needed. Before these changes occur, we have already had recourse to the opening of the radial or temporal arteries, which to my mind is the most reliable and unfailing of all tests, and can be used immediately after respiration and cardiac action have ceased.

(h) *Carrière's or Diaphanous Test*.—When the hand of a living person is held before a strong light, with the four fingers and thumb in contact with each other, or even separated from each other, but extended, a certain transparency, familiar to all, is apparent; but in death this translucency is absent. This is the popular opinion. The presence or absence of this phenomenon is supposed to relate to the presence or absence of circulation. Transmitted light after death would give the part a marble-like and opaque appearance; before death it has a certain transparency and rosy hue. This so-called *diaphanous test* is supposed to be a criterion of death, but to me it is unreliable and faulty. I applied this test in 478 of my cases, not only with powerful sun light, but also with powerful reflectors, which gave an excellent and penetrating light, and in fourteen of the cases the rosy hue or tinge was apparent between the fingers as distinct as if it had been my own hand. The diaphanous test is not a trustworthy one by any manner of means. When applying this test, the light must not be held more than five inches from the fingers. A lighted candle, gas, lamp or electric jet may be used. Furthermore, the test must be used on semi-transparent parts of the body, such as the ears, fingers or toes, and if light is not as powerful as it should be, a magnesia lamp may be substituted. At times you will find this so-called red line of life in the dead body as distinct as in the living person.

(i) *Röntgen Ray*.—No matter what information the radiograph may give us as to the signs or tests for death, that information can be no more certain than the cutting of the radial, or the beginning of decomposition. Tests have been made with the radiograph to test the reality of death. A Röntgen ray photograph is made of the chest of the dead person, so as to include the heart in the picture. An opaque object with oscillating edges (like the pulsating, living heart), if interposed between an X-ray tube and a photographic plate, will leave on the latter a shadow print with light-toned margins. Hence, in a radiograph of a living heart the contour is light and indistinct, and merges gradually into the dark main mass of shadow. In a dead body, on the other hand, the edge of solid thoracic organs, as the heart and diaphragm, is sharp and lacks the dim borderland that marks pulsating movement. I have not as yet used this test, and think it superfluous, for a pulsating and oscillating heart may be detected by other and simpler means.

3. CHANGES IN THE EYE.—With the cessation of the circulation and consequent abolition of all arterial pressure and tension, the eyeball becomes less tense, in fact loses its tension, becomes softened and flattened, and also wrinkled. These physical qualities take place from the absorption of the aqueous humor. There is a perceptible loss of tone in the globe, also absence of elastic resistance. During life the eyeball is elastic and resists pressure, but after death it collapses, sinks in its socket, and becomes flaccid and buttery, as it were—in fact, so much so as to retain dents and marks of any pressure to which it may have been subjected. This condition of the eyeball comes on in most cases twelve to fourteen hours after death, sometimes sooner. Still there may be loss of tonicity during life. Thus, in old age, the globe may sink into its socket. Various diseases of the eye, or of the general system, may produce the same result, especially when there is great exhaustion. When the heart ceases to beat, circulation ceases in the globe of the orbit, emptying the blood vessels, causing the loss of tension spoken of. This is counted as a certain sign of death and as a proof that the heart is not beating.

In 128 cases of the 7900, I observed that the eyeball became larger and harder; especially was this the case in instances of death by drowning where the eyeball absorbs water. Furthermore, the eyeball may become preternaturally prominent after death, having the appearance of the globe being pressed forward; this is in some cases due to the development of gases within and behind the globe. The cornea becomes opaque and milky in consequence of this; the lustre of the eyes disappears; there is no sensibility to the cornea; touching the cornea is a common mode of testing its sensibility; this is always found after death, but it is also found during a certain stage of epilepsy, also in certain injuries of the skull and contents. The loss of lustre in the eye, just spoken of, sets in speedily after, and depends on the formation of a thin film of mucus over the surface of the eye; after a time the cornea itself becomes perceptibly milky and opaque. Thus it is easy to perceive that the eye may lose its lustre during life, as we are all acquainted with a condition called opacity of the cornea; and on the other hand, the eye may not lose its lustre for a long time after death, especially as seen after death from apoplexy, also after death from poisoning

by oxide of carbon and the compounds of cyanogen. The collapsed and wrinkled cornea, covered by tenacious and glairy mucus, also covering the conjunctiva and producing a loss of translucency, I have seen frequently as an accompaniment of very recent or impending death. The conjunctivæ present changes soon after death, the eyelids lose their elasticity and tone, gray, cloudy discolorations rapidly changing to black are observed upon the conjunctivæ and are soon followed by similar changes upon the internal surfaces of the same tissues; these changes are due to films of mucus, or to processes of putrefaction. The cornea is insensible to touch, or other influences, attesting, in the opinion of some, the reality of death. This loss of sensibility of the eye to light is characteristic as a sign of death, and still it may happen under other conditions. Soon after death the conjunctivæ exhibit externally gray, cloudy discolorations; as mentioned before, these rapidly become black. They are due either to the formation of films of mucus or to cadaveric imbibition dependent on the changes incident to putrefaction. These stains spoken of are on the exterior, and are closely succeeded by stains on the interior of a similar nature, and, as some celebrated scientist has said, "the two spots extend and approach each other, forming the segment of an ellipse." I examined the eyes for signs of death in 7607 of the 7900 cases, and in 92 of them the characteristic signs mentioned were absent—I found neither the opacity of the cornea nor the loss of tension. Thus in 92 cases, loss of lustre, softening of the bulb of the eye, and the appearance of black spots on the white part of the eye were absent. In the majority of cases the iris dilates and remains so; being a muscle and one of the smallest in the human body, it loses its reflex movements, and, like any other muscle, becomes flaccid; consequently the pupil which is formed by the circular iris reacts to light or other influences no longer—it dilates at the moment of death, to the extent of 5 or 6 millimetres. The pupil neither contracts nor expands to light, but certain poisons and affections of the brain affect the pupil in a similar manner. The pupil may dilate so widely as to present the appearance of no pupil, or absence of pupil. The black spot on the sclerotic, outer corner of the eye, is another phenomenon of death, and has been noticed by me in 89 cases only. It is at first very small,

but gradually grows larger, moving down toward the lower border of the cornea, or the angle of the eye, where it remains, finally attaching itself to the cornea, with the convexity downward; after becoming fixed it grows larger, and in this way may be an indication of the time since death ensued.

(a) *Test by Bright Light.*—This is accomplished by placing a bright light on one side of the eye, so that the focus of light may be concentrated on the pupil. This is done to ascertain the contractility of the pupil. The light may be moved in different directions, up, down, or from side to side, shading the eye at times, and concentrating the light rapidly on the pupil. I tested 871 of the 7900. cases in this manner and in no case did I get reaction of any kind; of course, it is a scientific fact that no reaction takes place in some diseases. According to some authors, reaction to light, or rather non-action, proves nothing, unless we take it in with the bulk of the other phenomena of death. Commonly it is considered sufficient to hold a lighted match before the eye, which will cause the pupil to contract as much as any other light. The change in the size of the pupil from dilatation to contraction is regarded as characteristic of vitality; but very soon before death, the iris, muscular in structure, and with the properties of other muscles, loses its power of contractility.

(b) *Test by Mydriatics.*—Atropin, eserine and a few other powerful alkaloids, have peculiar physiologic effects on the pupil of the eye of the living person. This action ceases with the cessation of life; the pupil of the eye then loses its responsiveness to mydriatics. I tested for the reality of death, in forty very recent cases, in fact in those cases where I happened to be at the death-bed, and in no case did I get any response with atropin. Thus can the reality of death be tested by drugs dropped into the eye, for the purpose of getting a contraction or a dilatation of the pupil; these drugs are supposed to have no effect on the muscle of the iris after death, but, since starting this paper, I have seen the pupil in a dead person dilated appreciably by atropin. I therefore count this test as worthless, and have come to the conclusion that if these mydriatics are used shortly after death, we may in rare instances get a response.

. Thus I have seen that dilatation of the pupil does occur after death, which is explainable by the fact that the iris becomes

flaccid as soon as and sometimes before death occurs. It has been held that the circular shape of the pupil, during life, is uninfluenced by pressure brought to bear on the globe. After cessation of life, if pressure is exerted on the globe, it may affect permanently the normal roundness of the pupil. This also is a theory that does not hold, as in seven instances in life I have seen the pupillary roundness changed by pressure, by synchronous compression, brought to bear in two opposite directions; in these cases, this test was applied by accident in attempting to close the eyelids. Thus, during life, a certain flaccidity of the iris may exist for a few hours before death, but it is not so evident as that which exists after death has taken place. Is it this flaccidity of the iris, then, which causes the dilatation of the pupil as soon as life ceases? This is a constant occurrence, and is a post-mortem dilatation; with it as a phenomenon of death, it is impossible to say what the condition of the pupil was at the time of death.

(c) *Ophthalmoscopic Test.*—This is a procedure that has been neglected to a great extent as a test of real death. As yet observations derived from the use of the ophthalmoscope are very meagre, and consequently its use can not be relied on as a certain test of real or apparent death, but the literature on the subject shows, thus far, that its revelations are very promising. In using the ophthalmoscope the cornea must be very clear, which is a very rare occurrence, as we have seen. The ophthalmoscope applied will show the normally yellowish red of the fundus changed to a yellowish white at death. This is evidently due to the absence of circulation; the red spots in the optic disk are replaced by white spots due to the same cause. After death, the arteries and veins of the fundus oculi are completely emptied; not only does the optic disk show this, but the surrounding tissues also. The fundus of the eye presents a beaded condition of the veins, due to the presence in them of air bubbles. This is then called pneumatosis of the veins, and is due to the normally imprisoned gases in the venous blood, which become disengaged at death; this causes the column of blood in the veins to be broken and to take on this bead-like appearance. This condition occurs in the retinal veins, and constitutes, according to some authorities, a certain and immediate sign of real death. This sign, it is claimed, can be readily seen with the ophthalmoscope.

The objection I have to it is that it can not be used in all cases on account of the milky appearance of the cornea. Thus, it is claimed, that we can read death, in the human eye, simply by applying the ophthalmoscope, and observing the condition of the veins and arteries, with a certainty of distinguishing real from apparent death. It is claimed that the blood vessels and veins of the retina are least nourished of any vessels in the human body, and that for that reason feeble circulation ought immediately to be noticed, where it exists, when an examination is made with the ophthalmoscope. No doubt the eye does take on an entirely different aspect after death, and an unmistakable one. Within a short time the color of the blood in the arteries and veins entirely disappears. No doubt it may occur just before, or at death, but we are handicapped in using the ophthalmoscope where there is a hazy cornea. Consequently this test is applicable in a certain number of cases only. We all know that the veins and arteries of the retina have distinct differences in color, the veins containing a dark, almost black blood, the arteries, a bright almost crimson. Under the ophthalmoscope these two shades may be distinguished in life, but the opaque film of death precludes the possibility of discerning that the shade distinction has entirely disappeared. Even in cases where it is possible to use the ophthalmoscope after death, it will be seen that the blood in both arteries and veins has been transformed into a pinkish color of a uniform shade. This test has recently been advocated, and in forty-seven of the cases in which I applied it, in all of them the uniform color was apparent. It is certainly a simple and reliable test, and may be recommended in any case of suspended animation, trance, catalepsy, or other condition approaching death, where the eye can be approached with the light of the ophthalmoscope.

(d) *Ophthalmatonometer Test.*—This test has not been used by me in my series of cases, but I deem it of sufficient importance to recount the method of its application. The instrument is the invention of M. Nicati. By the aid of this instrument he has discovered that the tension of the globe of the eye, which he says is normally from eighteen to twenty-one grammes, may oscillate in the physiologic state, between fourteen and twenty-five grammes ($T. = 0.4$ to 1). This tension diminishes with the cessation of the heart beat to twelve grammes, and the lowering

of tension, interrupted by rebounds never exceeding twelve grammes, is afterward progressive, until after the lapse of half an hour it has sunk to from one to three grammes; in two hours it is nil. The enucleated eye replaced in the orbit presents the same phenomena.

4. LOSS OF ANIMAL HEAT.—The loss of animal heat is a sign of great importance in determining real from apparent death. At the moment of death there may be a rise of temperature of from $3\frac{1}{2}$ to 7 deg. F.; especially is this the case in death from infectious diseases, when the temperature is taken by the rectum. This rise simply proves that chemical activity continues after death has occurred; as a sequel to this rise there is a lowering of the temperature. The average internal temperature of the body is from 98 to 100 deg. F. This may be increased in consequence of disease to several degrees higher. One of the most remarkable phenomena of life is the power that man possesses of maintaining temperature at 98.6 at an average, no matter what the character of his surroundings may be, whether he be in the tropics or in the arctic regions. This body heat is derived from the potential energy admitted into the body with the food, and also with the oxygen in the respired air. The blood, during and after digestion, becomes surcharged with carbon, oxygen and hydrogen. Part of this goes for tissue repair, and part of the gases combine with the sulphates to generate heat by chemical means, and some of the body heat is generated by slow combustion. Temperature of the body is also generated by the brain, muscles and glands. When the vital processes which generate temperature in the living body cease, as they do after death, there is then a gradual and progressive decline in the body temperature, until it arrives at a degree equivalent to that of the surrounding air. This post-mortem loss of heat seldom falls to a degree less than that of the surrounding media, unless the temperature rapidly increases in the atmosphere. The body after death ceases to produce or generate heat. It is then nothing but an inert mass, but according to some authorities parts with its heat less rapidly than other media. For instance, a body covered with a thick coating of fat, or covered with clothing, will cool less rapidly than another. Certainly if a person dies in bed, covered with bed clothing and perhaps heat in the room, his body will retain and preserve its heat for a longer or shorter

period; there will be less cooling of the body in this case than if the person had died in a cool room and with body uncovered. For instance, a person dies at a hospital, his body is at once removed to the dead house, his external and internal temperatures rapidly decrease. Chemical changes rapidly diminish after death, still there may be a slight rise in temperature in the interior of the body, due to the continuance of metabolic changes in the tissues; at the same time respiration has ceased, consequently the blood can not be cooled, because it can not be sent through the lungs and capillaries of the periphery. Between rise of temperature in the dead body and cooling of the dead body there is complete opposition; the temperature of the periphery is the slower in cooling, thus the temperature externally varies, and must not be mistaken for the superficial coldness of collapse, which implies the cessation of the peripheral circulation only. The coldness of the cadaver, apparent to the touch, is no criterion of the cessation of life, for the simple reason that there is still a certain amount of internal heat that has to be parted with, and the body which is cold to the touch before death may after death show a rise in temperature, due to radiation of the internal heat. Circumstances favor radiation and the conduction of heat in the bodies of the dead the same as they favor radiation and the conduction of heat in inorganic bodies. Cooling of a dead body is slow if the cause of death has been a disease of long duration, as consumption of the lungs, but if death be due to hemorrhage, then cooling of the body will be a rapid process; but if death be due to an infectious disease there will be an initial rise of temperature as soon as death occurs. Is this due to a rapid rigor mortis, or is it due to a continuance of thermochemical or other processes in the body? Consequently cooling of the body is not a sign of death to be classified as positive; it is the progressive cooling of the body which stamps death as certain. Many conditions may impede the peripheral circulation, drunkenness being one of them; if death takes place during this condition, the spasm in the blood vessels which hindered circulation relaxes, and the temperature as a result of this rises. Cooling of the body is most perceptible in the axilla, but is equalized in some hours all over the body. After death from certain diseases, as rheumatic fever, tetanus, asphyxia, apoplexy, typhoid and scarlet fevers, the body may retain its heat for a long while, and

even show a rise of temperature. I have repeatedly observed this, as have other observers. Thus the time occupied in cooling the body may be prolonged after sudden death, and also by the above mentioned causes of death, the body may retain heat for a number of days after death, without any explainable cause; thus the time elapsing since death can not always be reckoned by the temperature. Cooling of the body may be very rapid after death from chronic wasting diseases, hemorrhage and fevers, the external temperature being reduced to that of the surrounding air within four or five hours. The body of a well-nourished person will cool less quickly than the body of a child, or old person. The phenomenon of cooling is modified to a certain extent by the temperature of the surrounding air, protection of the body from currents of air, and the ability of the internal organs in retaining their heat longer than the surface of the body. Thin and emaciated bodies cool more rapidly than others, fat being a non-conductor; a body that is exposed to the air will lose its heat more quickly than when it is enclosed, and a body unclothed will lose heat more quickly than if it were clothed. If the room of death be a large and airy one heat will be given off from the dead body more rapidly than if the room be a small, close and confined one. A body taken from the water loses its heat more rapidly than if it had been exposed to the air. In fact, bodies cool more rapidly in the water than in the air, and more rapidly in the air than indoors, more rapidly when exposed to a draught than in a tranquil atmosphere, more rapidly in a large apartment than in a small one. A large body requires more time to cool than a small one. It is claimed that if a body is exposed in a cold room and the temperature of that body falls to that of the surrounding air, that is to about 20 degrees centigrade, then death is certain. As far as my experiments are concerned, temperature has proven nothing, for I have known bodies of living persons to be as cold as ice, and not be near death. The heat of the interior of the body may be retained much longer than the heat of the external surface, the internal organs frequently being 10 to 20 degrees above that of the surface. A continuance of molecular life, after the cessation of somatic death, is the cause undoubtedly of heat after death. The rate at which cooling occurs is most rapid, as a rule, immediately after death; this is also

the case where a *post-mortem* rise has occurred. The time usually occupied in cooling is from fifteen to twenty hours, subject to modifications which were attendant upon the death. The body may be quite cold in about twelve hours; after the preliminary rise the temperature gradually falls on an average at about the rate of one degree Fahrenheit an hour. During the first three hours after death, the body loses as much as $3\frac{1}{2}$ degrees per hour—many times, less; it then gradually falls until in about fifteen to twenty hours it is that of the surrounding air. Certain conditions before mentioned will influence this cooling of the body, so that the average time within which the body cools varies. To sum up, it is varied by the condition of the body at the time of death, the manner of the death, and the circumstances under which the body had been placed. The average rate of cooling for the first three hours, according to an eminent author, being about $3\frac{1}{2}$ degrees Fahrenheit, which would make $10\frac{1}{2}$ degrees in three hours, then in the next six hours the rate would be 3 degrees per hour, from then on 1 degree per hour; in some cases cooling is complete in five hours, in others not so for twenty-four hours. In the experience of all, it can be asserted that cooling of the extremities exists for many hours before death. Return of color to the cheeks has been frequently observed in bodies of those who, for the purpose of preservation, have been frozen by ice, and on the day of interment they are removed from the receptacle for freezing and placed into the casket for burial, a flush of color ensues not unlike the natural hue of a healthy person; this does not last very long, but passes into the dusky hue of decomposition. In these cases there has been a rise of temperature above that of the previously surrounding media immediately on taking the body from the freezing mixture.

(a) *Temperature Test.* — With the thermometer we can only approximately pronounce upon the time that has elapsed since death. In order to do so even approximately we must take into account all the conditions which modify the rate of cooling of the body, and then we can only state the probable time. We know that cause of death has something to do with the cooling of the body; still, knowing this, we could not infer what actually caused death by

the state of the thermometer when applied to the body. Cooling of the body is a less certain sign of death than some others, because the phenomenon of cooling is varied by so many conditions. In making observations the use of the thermometer for ascertaining post-mortem temperature is indicated; the sense of touch is not sufficiently delicate for noting actual coldness, it will detect apparent coldness only. The temperature of the exterior of the body should be noted as well as the temperature of the interior of the same. In taking the temperature of the exterior of the body, the axilla may be employed, although the tension of the gas which forms in the abdomen, after death, drives the blood toward the periphery; thus this part of the body gets a little warmer, but in about 30 hours an equilibrium is established between the temperature of the rectum and that of the axilla. In taking the internal temperature the mouth or rectum may be used to place the thermometer in position. If the temperature of the dead person is taken in the mouth, you will find it lower than the temperature of the surrounding media. Here also, the conditions must be taken into consideration which tend to reduce temperature in the dead body. It has been contended that as the temperature of the skin is always increased during muscular contraction in the living person, by electric stimuli, this absence of increased temperature in muscles would be a sign of death. The thermometer is to be placed upon the skin before and after muscular contraction, and the difference noted. Temperature in a muscle may indicate death, still the heart may beat. Temperature taken in the mouth indicating 62 deg. F. is as certain of death as any sign can be, but is not as applicable as other tests. In from five to eight hours the temperature of the deeper tissues falls to about 80 deg. F., while a few hours after this it may be found to be higher. As regards temperature, I will say that a continuous and progressive cooling is a more certain sign of death than death certified from an absolute temperature.

The following were the temperature observations made by me in my series of cases. Of course all cases were not subjected to the temperature test for various reasons:

EXTERNAL TEMPERATURE.

These observations were made simply by placing the bulb of the thermometer on the skin of the abdomen, and holding it there.

	2 to 3 hours after death.	4 to 6 hours after death.	6 to 8 hours after death.	12 hours or more after death.
Number of observations.....	812	709	612	559
Maximum temperature of the body.....	95 deg. F.	86 deg. F.	81 deg. F.	78 deg. F.
Minimum temperature of the body.....	59 deg. F.	59 deg. F.	58 deg. F.	57 deg. F.
Average temperature..	77 deg. F.	72.5 deg. F.	69.5 deg. F.	67.5 deg. F.

[TO BE CONTINUED.]

Clinical Reports.

A CASE OF CONGENITAL SACRO-COCCYGEAL TUMOR. REMOVED FIFTEEN DAYS AFTER BIRTH. WEIGHT FIFTEEN OUNCES. RECOVERY.*

BY E. D. MARTIN, M. D. PROFESSOR MINOR AND CLINICAL SURGERY, NEW ORLEANS POLYCLINIC; VISITING SURGEON TO CHARITY HOSPITAL, ETC., NEW ORLEANS.

In looking over the available literature on this subject, I find that this is the region for various tumors and those of most difficult diagnosis.

Many varieties are met with, such as fatty, cartilaginous, osseous, vascular, fibroid, epithelial and cystic. Molk divides them into (1) cystosarcoma and sarcoma, (2) cystic tumors, (3) tumors originating from Luchska's gland, (4) caudal tumors, (5) fetal tumors and (6) complex tumors.

They are undoubtedly intrapelvic, though little is known of their origin or mode of formation.

In fact nothing is known of their etiology.

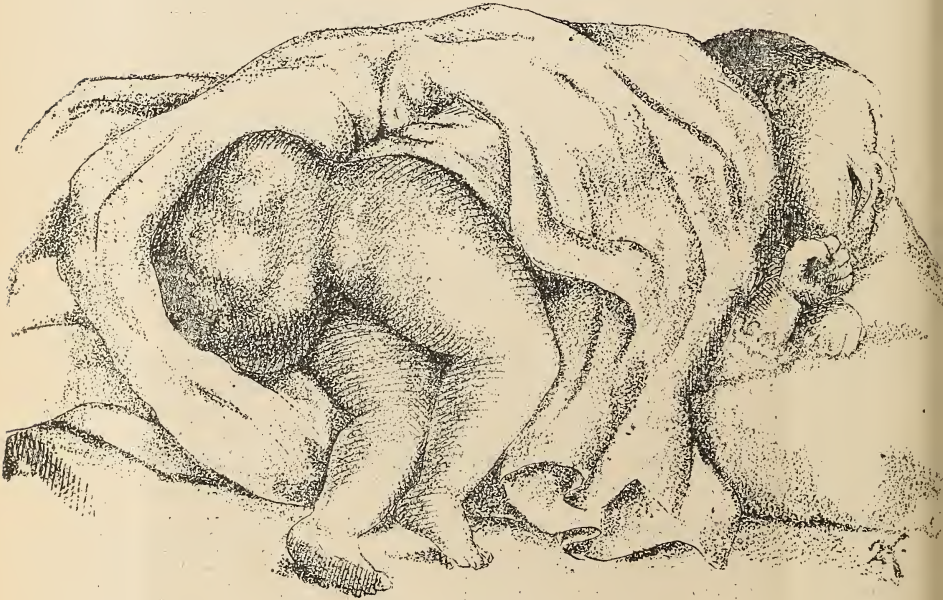
They appear more frequently in females than in males.

Heredity seems to form no part in their formation and they rarely occur with other deformities.

* Read before the *Orleans Parish Medical Society*, April 8, 1899.

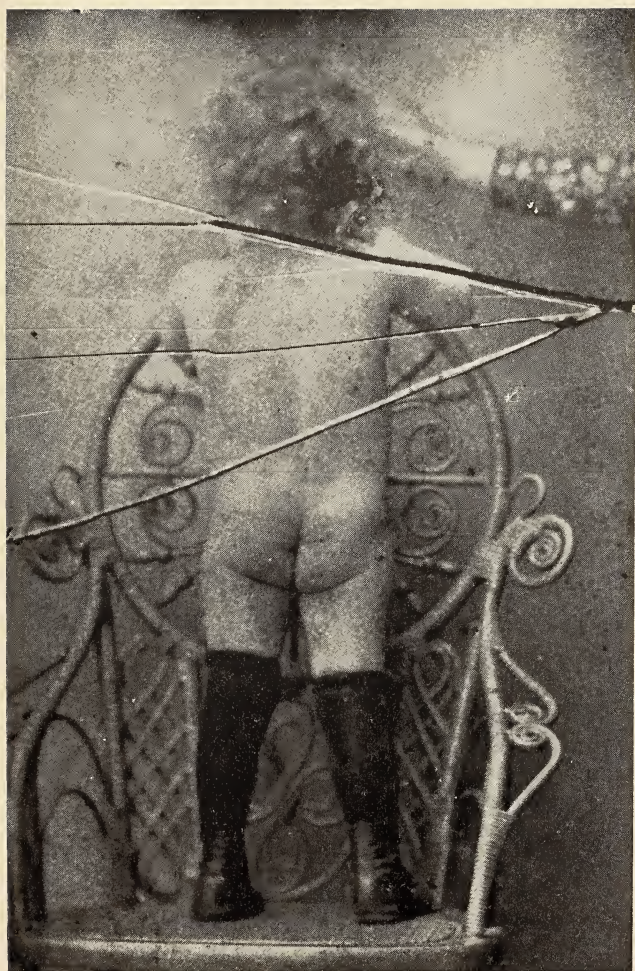
These tumors vary in size, and, as a rule, are covered partly with skin and partly with what appears to be mucous membrane. The blood vessels are large and dilated, and the tumors generally contain cysts, filled with dark, thick liquid.

The case I present for your consideration this evening is unique, and, as far as I can learn, is the first on record here in New Orleans. Both the mother and father are of medium size and healthy. From all I can learn the labor was normal. The tumor was so nearly the size of the child's head that the midwife in attendance thought it had two heads. I first saw the baby when it was a few days old, and, except for this tumor, it was in every respect normal.



CUT NO. I.

The tumor projected from the sacro-coccygeal region; its base was about two inches in diameter, extending from the third sacral vertebra to the anus. It was oval in shape, its greatest diameter being four inches, lesser two inches, weight fifteen ounces. About half of the tumor, from the base up, was covered with skin. The rest somewhat resembled mucous membrane, and being cystic on the surface was not unlike a case of spina bifida. The blood vessels were very large and distended.



CUT NO. II.
AT 4 YEARS OF AGE.

I kept the case under observation a week, when I noticed a superficial slough occurring in a vascular region, and I realized the child's only chance involved an operation.

I had it removed to the N. O. Sanitarium, where Dr. H. P. Jones took the photographs from which Dr. Kohnke was able to prepare this engraving.

On September 25, 1894, I operated, assisted by Dr. Matas, and Dr. E. D. Newell (now of King, La.). Two lateral incisions were made along the margin of the skin proper, which was carefully dissected down. We were not long in discovering that we were dealing with a solid tumor, and not as we thought, cystic tumor, or spina bifida. The dissection was rapidly made down to the pedicle, which was found to be small and attached to the coccyx. Though vascular, no very large vessels were encountered and hemorrhage was easily controlled. Removal of the tumor left a large space between the coccyx and the anus, exposing the rectum in the centre and the glutei muscles on either side. At the suggestion of Dr. Matas, the sphincter ani was brought as close as possible to the coccyx and the glutei maximi muscles dissected away from their attachments and brought together in the middle line to fill in the gap and the skin brought over these and sutured, catgut being used for the deep sutures and silk for the superficial. The surface of the wound was powdered with iodoform and a light, loose dressing applied and the nurse directed to keep the child on its abdomen as much as possible to prevent infection of the wound. This however proved a difficult task, and a superficial slough from infection resulted. No damage was done to the deeper structures, and though union was retarded, the result was all that could have been hoped for.

I would like to call your attention to a plate in the charts on clinical surgery by Jonathan Hutchison (XLVII, p. 34), which is almost a fac-simile of this case.

The pathologist returned a report of myxo-sarcoma. Sections were made from a small portion of the tumor removed from the centre. The specimen was unfortunately lost, when the Sanitarium moved into its new quarters. Now, I have the pleasure of introducing the patient, and will allow you to draw your own conclusions.—(See cut No. 2.)

A CASE OF LEPROA, TROPIC TYPE.

BY OTTO LERCH. A. M., M. D., PH. D., NEW ORLEANS.

With the kind permission of Professor Reynaud I report the following case, which is of more than usual interest:

John McCoy, born in Ireland in 1833, laborer by occupation, came to New Orleans fifty years ago. With the exception of fourteen months which the patient spent in various parts of California—San Francisco, Sacramento and Yuba river—principally engaged in mining, from 1853 to 1854, he has lived during all these years in this city. He claims that he never has left the third district of New Orleans, but that he has had his residence in nearly every one of its streets. It is of great interest to note that this is an additional case that has developed in this district. Dr. Isadore Dyer, in his article on "Endemic Leprosy in Louisiana," read at the 1897 Berlin Leprosy Conference (*Philadelphia Medical Journal*, September 17, 1898), makes the statement that in New Orleans most of the cases have occurred in the second and third districts, adjacent to the old leper hospital, existing between 1785 and 1807. Patient married in 1878; his wife is still living and healthy, but has had no children by him. He was a soldier in the civil war; does not remember to have ever come in contact with anybody affected with lepra.

No hereditary taints. His father died when 47 years old of an acute disease, his mother when 54 years old, no brothers and no sisters. Of the infectious diseases, patient has had yellow fever, typhoid fever, malaria, pneumonia and syphilis. In 1883 he noticed a dry scaly appearance of his skin which he described as being exactly the same affection from which he is suffering now. After a year this passed entirely away, but returned off and on up to the present, and his condition has remained as it is now for several years. In 1893 he went to Hot Springs for treatment and claims to have derived a great deal of benefit from the baths at that time. Except from the acute diseases enumerated and this almost constant affection he claims to have been in good health and able to perform hard work up to his admission to the hospital. He was admitted to the Charity Hospital, ward 24, on the 18th of February, complaining of an acute bronchial catarrh. A man of medium size and intensely

senile appearance, adipose tissue and muscles wasted. His face presents the characteristic features of the satyriasis of lepra; so much so that Prof. Reynaud, who has had a great deal of experience with this disease, immediately suggested the diagnosis on seeing the patient. The expression of countenance is indolent, rather dull and almost repulsive; the cheeks are full and flabby, the lips thick and bloodless yellow, the complexion a dull, waxy color, the nose appears somewhat deformed on account of the hypertrophy and roughness of the *alæ nasi*, the tongue is thick, no teeth are left. The conjunctivæ are hyperemic; right eye, loss of sight due to the effect of an iritis; the pupil of the left eye does not respond to light. A laryngeal examination revealed the arytenoids hypertrophied. The skin is excessively dry, rough and scaly, and can be raised in large folds from the underlying tissue (epidermolysis). The scales are moderately large, the whole surface resembles a thin alligator skin, fitting the patient badly; even the scalp shows the scales, though somewhat less marked. The hair on the scalp is of snowy whiteness, dry and fine in texture. The crown of the head shows marked alopecia, the eyebrows and lashes are entirely missing. The nails of fingers and toes are rough, thickened, cracked, deformed and discolored, and the dorsal surfaces of the phalanges are covered with suppurating excoriations; ankles and feet present edematous swellings, pitting on pressure, and venous congestion. No nodules felt in the auricles nor anywhere else; pulse 80, temperature normal, arteries sclerosed, radial arteries tortuous. Left heart hypertrophied, apex beat in mammary line, systolic murmur at apex, pulmonary second sound accentuated, lungs normal, liver normal, spleen not palpable, digestion and appetite fair, bowels irregular, constipation alternating with diarrhea, motion intact, control over bladder and intestines, Romberg's phenomena not present, stands well with his eyes closed, sensorium free, special senses intact, right eye excepted.

Scalp slightly sensitive to pain, sensible to touch. *Back*, sense of pain completely lost, feels the prick of a needle thrust deep enough into the skin to draw blood; sense of touch intact, sense of heat and cold entirely lost; *thorax and abdomen* correspond to back; *in the lower limbs*, sense of touch only retained; *on hands and forearms*, all sensation of pain, touch and heat and cold lost;

from *elbow to shoulder*, sense of touch intact, of pain somewhat improved, and of heat and cold destroyed. Patellar reflexes present.

Urine of a deep amber color; reaction acid, contains traces of albumin, granular casts, urates, uric acid and phosphates of the stellate form. The presence of this deposit is, according to W. Roberts, an accompaniment of some grave disorder. He has met with it in diabetes, cancer of the pylorus, once in phthisis, and more than once in patients exhausted by obstinate articular rheumatism.

Hussal first called attention to this form of urinary deposits in 1860, and Roberts, who re-examined the question in 1862, reported as follows:

The prevailing appearance is that of crystalline rods or needles either lying loose, or grouped in stars, rosettes, fans, or sheaflike bundles; some of the crystals are club or bottle-shaped, and abundantly marked.*

I do not remember that these deposits have been noted before in the urine of leprosy patients. Blood is of an intensely dark, venous color; red blood corpuscles are pale white; blood corpuscles are present in excess.

The blood was examined for the bacillus lepræ, with negative results.

In the nasal secretion, a bacillus was discovered in considerable number resembling the tubercle bacillus, more slender, perhaps, and straight, staining and retaining the color well. The method pursued was to make a cover-glass preparation, to stain the preparation with carbol fuchsin and decolorize with nitric acid. The bacillus found corresponds in general appearance, in staining qualities and in size to the bacillus lepræ.

Dr. Isadore Dyer, who was kind enough to see the case, confirmed the diagnosis of leprosy, and commented upon the unusual type presented. He said that while trophic and mutilating leprosy is by no means rare in Louisiana, this was the first case he had seen, or had known, of the purely trophic type, without skin deposits and with so universal a degenerative senile change in the skin. It resembled the cases of classic type found in Norway and among the Orientals, of which Leloir (*Traité de la Lèpre*) has reported a number.

* HENRY FENWICK, in *Diseases of the Urine*.

It is of special interest in this case that the patient is a foreigner, coming from a parentage free from any hereditary taint; that he has probably contracted the disease in that district of the city which has furnished the majority of the patients observed in Louisiana, and that his affection, though almost of eighteen years' standing, was never recognized, nor was it known to the patient when he entered the hospital; that his wife, as far as can be ascertained, is still free from the disease, and that not a single case of lepra can be traced to this source.

The first proposition seems to furnish additional proof to the now commonly accepted view that the disease is contagious; the second that quite a number of conditions must prevail in an individual exposed, even constantly exposed, such as, for instance, an abrasion of the skin and direct contact of the contagion with the injured place, to cause an inoculation, and this alone most likely would not suffice, in many instances, to make the inoculation successful. Other conditions, perhaps a lowered state of health at the time of the infection, must be added.

It is no doubt due to the little inconvenience the slow progress of this variety of lepra has caused the patient that it has not been recognized by himself nor by the several physicians who have treated him from time to time.

Clinical Lectures.

INTERESTING COMPLICATIONS OF TYPHOID FEVER.

BEING A SERIES OF NOTES FROM THE PHILADELPHIA CLINICS, SPECIALLY REPORTED FOR THIS JOURNAL.

CHOLECYSTITIS IN TYPHOID FEVER.*—The first case of which I will speak shows one of the rarest complications of typhoid fever. The patient is a girl 8 years of age, admitted with a history of having been ill three weeks. Whether this was the case or not, the fever was still at its height when she was admitted to the hospital, her temperature being 105 deg. The fever remained high for ten days, then

*From the clinic of Prof. J. M. Da Costa.

slowly fell, with marked variations, until twenty-one days after her admission, when the temperature reached normal.

The patient remained in this condition for five days, when she was taken with a violent pain in the abdomen. It is not easy to get a description of the site of pain in children, but in this case she persistently referred to the region of the liver and the upper part of the abdomen, especially to the right. She would lie on her side with legs and thighs flexed and cried constantly, the pain was so severe. The pain was also aggravated by vomiting. Nausea and vomiting were associated and were constant, nothing whatever being retained on the stomach for a period of twenty-four hours. After that only a small amount of brandy or milk and lime water could be taken for some time. The contents of the stomach were vomited, and then a bile-stained, greenish fluid. This lasted for several days, the temperature during the attack rising as high as 104 deg.

Here was an anomalous case, but while this condition was being noticed we had this further development; three days after the pain began the conjunctiva became slightly yellow and bile was also discovered in the urine. But before this our attention had been called to the liver because of the pain. Rigidity of the rectus on the right side was present and there was tenderness in the region of the gall bladder.

The child is now convalescent, though the urine still contained traces of bile forty-eight hours ago.

We have here an illustration of a very rare complication in typhoid fever, cholecystitis, and also what is rather unusual, a favorable termination of the attack.

You may ask upon what we base the diagnosis. We had here the typical symptoms of the disease: (1) Pain. This is never absent, and here was so prominent as to direct attention at once. (2) A marked symptom both in children and adults is swelling of the gall bladder. Here this was not only palpable but was so marked as to be visible also. (3) As a less constant symptom there is nausea and vomiting. Here both were very prominent. Rigidity of the recti muscles and slight jaundice were also present. I may say here that jaundice is not a prominent symptom in cholecystitis in typhoid fever. It is not always present in these cases. Here it was found rather by chemical test than by any visible signs.

While these attacks are not common in typhoid fever we know from recent observations that the gall bladder is often infected when no inflammation is set up. These cases are a true infection by the typhoid bacilli and the majority of them prove fatal. I have had only one more case this year, that of a man, and he also recovered. Here were two cases, then, that fortunately recovered, but this is not the common termination. The bacteria infect the gall bladder and not only set up a catarrhal process but this may go on and become purulent. In making the distinction between ordinary cases and those in which there is pus formation the question arises as to how we can tell the difference between the two. There is no absolute means of telling this, but it may be said that where there is great irregularity of temperature, chills, and tendency to sweat, we may assume that the purulent form is present. This is as nearly accurate as we can state.

Now as to treatment. Turpentine stupes were applied over the abdomen, followed by ice bags over the region of the gall bladder. When the patient complained of the ice treatment, although she was then better, poultices were substituted. Calomel in small doses was given during the whole course of the attack. While the stomach was so irritable that nothing could be retained, enemata of peptonized milk and two drachms of brandy were given every three hours. When this irritation of the stomach had somewhat subsided, iced brandy one-half drachm and the same amount of liquid peptonoid were given at intervals. At one time we were driven by the violence of the pain to give what we did not wish to—opium and belladonna suppositories. This treatment will apply to any case.

This point now comes up: Suppose the tenderness had persisted, the obvious swelling lasted, and there had been no signs of recovery, what would have been done? The gall bladder would have been opened. Under these circumstances operation is not only justifiable but the physician is bound to have it done. I can think of seven or eight successful operations for the condition, not all under my care, however. There is a very fair chance of recovery if the gall bladder is drained.

A CASE OF ACUTE MILIARY TUBERCULOSIS SIMULATING TYPHOID FEVER.—This man was colored, fifty years of age, in whom a clear personal history was not obtained. He remembers no

severe illness excepting that he has had occasional "fits" for several years; he has no venereal history and he has been a moderate drinker. One week before admission to the hospital he had a "fit," after which he fell sick, complaining of general weakness, a dull and heavy head, lost appetite, loose bowels and soreness in his limbs. He grew steadily worse.

On examination, he seemed a fairly well nourished man; he was dull and quiet with no sign of suffering. He complained of no headache but some heaviness. There was no pain or tenderness in his chest. His appetite was gone, but he had no nausea or vomiting. His bowels were loose, but there was no abdominal pain. He passed urine freely; his tongue was moderately dry, whitish over the back, but red along the edges. His skin was dry but not edematous. There was some fibrosis of his temporals and radials. His pulse was soft, compressible and dicrotic. His heart sounds were weak, but there was no murmur or friction. Occasionally he had a harsh cough, but without expectoration. His lungs were resonant throughout. There were some scattered râles through the lungs, mostly over the right lung.

His abdomen was somewhat distended in the upper third; but no spots were perceptible and there was no apparent enlargement of the spleen. There was no loss of power or sensation in any part, except some tremor of his hands. His pupils were small, regular and equal, reacting to light and accommodation, showing no derangement of ocular muscles or sight. Hearing was impaired. His urine had a specific gravity of 1022, with albumin in fair amount and granular casts. His morning temperature was 104.2 degrees, pulse 90, respirations 44. His evening temperature was 103 degrees, pulse 92, respirations 45.

On next day he had a small bowel movement, loose and yellowish, and passed urine in fair amount. From history and present state, patient was thought to be suffering from typhoid fever.

Two days later the patient had two well-marked chills; one lasting forty-five minutes, the other lasting nearly an hour. He was mildly delirious and his nervous twitching was more marked. His heart's action was weaker. He had the occasional harsh cough with small amount of sputum, thick, tenacious, not rusty, but with very offensive gangrenous odor. Scattered

râles were found through both lungs. On the right side in lower axillary and infra-scapular regions was found impairment of percussion sound with numerous fine râles. His upper lobe was hyper-resonant with some scattered râles. His tongue was brownish. He had one bowel movement, dark and mushy. His abdomen was greatly distended, necessitating use of rectal tube.

Later he had another chill in the morning, lasting forty-five minutes. He had no delirium now but was very stupid. Odor of his breath was very marked. His bowel movement was large, soft and yellowish. Sputum stained for bacilli but we found none. The patient was thought now to have a gangrenous area in his right lung.

His temperature ran high, running up to 104.

He began to lose ground, his stupor deepened, his heart was weaker, the pulse being weak and very compressible, his respiration was rapid and shallow. When turned on left side for examination of chest, the movement excited his cough and a small quantity of brownish, very offensive sputum was brought up. At the right base, dullness was more marked and the râles were coarser, with very weak respiratory sound. His bowels were loose and his abdomen still distended.

On the three following days subsultus was very marked. His bowel movements were free, watery and yellowish. Sudamina were found over chest and abdomen.

He died one week after admission, and two weeks, according to the patient's statement, after his initial symptoms.

The post-mortem examination showed miliary tubercles scattered along larynx, trachea and bronchial tubes, and the structure of both lungs were packed with them. In the outer, lower portion of middle lobe of right lung a gangrenous mass larger than a hen's egg was found. No tubercles were found in other parts. The lower portion of the ileum had two Peyer's patches somewhat swollen and with "shaven beard" appearance, but there was no sloughing.

The mode of onset, the elevated and sustained temperature, abdominal symptoms, the stupor and impairment of hearing, the inability to determine spots owing to the color of the skin, pointed in the direction of typhoid fever, while the chills were evidently due to the gangrenous process, an occasional complica-

tion of that disease. In reality, the case was undoubtedly one of acute miliary tuberculosis.

A CASE OF TYPHOID FEVER COMPLICATED BY APPENDICITIS; RECOVERY WITHOUT OPERATION.—A young man aged 20, a laborer, with a negative family history, was taken ill in the fall, with loss of appetite, slight diarrhea and aching limbs. He had no pain, no nosebleed, no abdominal tenderness, no gurgling or distention. Five days later, however, persistent vomiting set in.

All these symptoms increased in severity until he was admitted to the hospital two weeks from the onset of the disease. At this time his condition was as follows:

He had a loathing for food, persistent vomiting, inability to retain even a drink of water; several typical typhoid stools per day, a greatly distended abdomen with marked tympany all over it, and in right iliac fossa a distinct tumor, boggy to the touch, flat on percussion and very painful on pressure; his temperature was 98.3 deg., pulse 100, respiration 28. He had moderate hypostatic congestion at base of left lung. Every examination of urine was negative. His tongue was moist and only moderately coated. The diarrhea continued throughout the course of the disease. At no time was his temperature very high, ranging from 98 to 101 deg. No rose spots of typhoid were ever present. No Widal test was made, as case was undoubtedly typhoid in character.

His treatment was as follows: Creosote in two-drop doses three times a day until vomiting ceased; stimulants, sick diet, subnitrate of bismuth in fifteen-grain doses every four hours, a pill consisting of one-quarter of a grain of silver nitrate and one-eighth of a grain of extract of belladonna every four hours. Since he seemed to be quite susceptible to belladonna, which soon showed its activity by dilatation of the pupil, the pill was discontinued and extract of opium was substituted to check diarrhea and control nervous symptoms.

The abdominal symptoms were most persistent, and in spite of turpentine applied locally in the form of stupes, and taken internally in emulsion, and various other remedies, the distention was marked for over two weeks, as was also the indurated mass in the right iliac fossa. At this time he was given calomel in one-tenth grain doses every two hours, which evidently did

good; the distention became less marked, the mass in the right iliac fossa slowly decreased in size, and eventually disappeared.

The patient's general condition continued to improve and he was discharged six weeks later.

Society Proceedings.

ORLEANS PARISH MEDICAL SOCIETY MEETING, APRIL 8, 1899.

DR. MARTIN read a report of a *Case of Myxo-Sarcoma of the Coccygeal Region*. (Published in this number of the JOURNAL.)

DR. DABNEY read *A Brief Protest Against the Mutilation of the English Language in Medical Nomenclature*.

He expressed his opinion against the tendency of certain authors to abbreviate their words or terms in medicine. Every language has its genius, and it grows, decays, etc., according to its vitality. Among the words subjected to the abuse he attacked, Dr. Dabney instanced "hematuria," "iodid," "bromin," etc. He quoted Virchow as recently having expressed himself upon the matter of "word-butchers." The doctor urged his audience not to follow the lead of the *soi-disant* "world betterers."

He said that there was no such thing as phonetic spelling, and instanced the word "cat" as a type, saying that no pronunciation of the letters in sequence could spell what it is now called. For such spelling, arbitrary rules only can be made.

The doctor concluded by saying that the argument used in abbreviating was only bringing the language down to the level of the ignorant, whereas it should rather be elevated above such a plane.

DR. DE ROALDES AND DR. KING reported a case of *Eunuchoid or Falsetto Voice* and exhibited the patient (the patient had also been exhibited at the previous meeting of the society).

Dr. King read the history of the case, which was that of a white male, 19 years of age, laborer in a cotton mill. He was healthy and active as a child up to the age of 6 or 7 years, when

he had an attack of dropsy, which left him feeble for some time, but he subsequently recovered entirely.

The present trouble dates from an attack of measles occurring when patient was fifteen years of age—just at the age of puberty, when a change of voice should have occurred. Owing primarily to a congested and inflamed condition of larynx, which persisted for some time, patient had contracted and continued in the faulty habit of using only the high register up to the time of treatment. Physical examination showed genital organs to be normally developed. There was no venereal history. Laryngoscopic examination showed larynx to be rather over-developed.

This case differs from that of the eunuch, where the subject has been castrated before the age of puberty and the larynx has never developed to its normal size and where the high pitch of voice is due to a dwarfed larynx; whereas in the present case the whole trouble is due to the patient having acquired the habit of abnormally using the vocal apparatus, in fact he has entirely forgotten the lower register.

The treatment consists in teaching the patient to use the lower register, and guarding him for some time lest he relapse into the former faulty habit. The first step is to convince patient that he *can* utter low tones. To assist the first attempt at this, the head is depressed and patient requested to imitate a series of low tones, such as counting. Once the confidence is established he is told to utter the vowels a-e-i-o-u in a basso voice; next he is taught to use monosyllabic words, then the two syllables, such as papa, baba, bobo, etc. Patient then reads, being carefully instructed to avoid his former falsetto voice. This method of vocal gymnastics is kept up for several days, patient being kept constantly in the company of some one having a low pitch of voice, so that in case there is a tendency to relapse into the falsetto voice, he is immediately corrected, having his companion's voice to follow as a standard. At the end of about ten days or two weeks of such treatment patient finds it inconvenient, sometimes impossible, to speak in his former falsetto voice.

DR. STORCK demonstrated a *simple method of regulating the inhalation of oxygen* by means of passing the oxygen through water in a bottle. The oxygen was first allowed to escape from the

reservoir into a caoutchouc bag, holding about a gallon under ordinary pressure. This bag was connected by a rubber tube to the glass bottle, which in turn was connected with the mouth-piece.

DR. HAMILTON JONES reported a case of *loss of testicles*, which presented some points of interest. A boy sailor, aged 17 years, had a fight with the engineer aboard ship. The engineer struck him violently on the scrotum. He suffered exceedingly. The next day the testicles were missing, and have not since reappeared. The patient had called for treatment for apparent loss of virility. Examination found the scrotum empty. Found what appeared to be a testicle over the right Poupart ligament, which caused nausea upon pressure. On the left side found a large fluctuating mass, about three inches long and half an inch wide. This was not affected by pressure.

In relation to the case reported by Drs. de Roaldes and King, Dr. Jones stated that there was no change in his patient's voice, and that his otherwise robust health forbade any cosmetic operation, but that he had told the patient that celluloid testicles could be inserted if he were anxious about the present appearance.

ORLEANS PARISH MEDICAL SOCIETY MEETING, APRIL 22, 1899.

DR. E. M. DUPAQUIER read a report of a case of *Involvement of the Heart and Brain in a case which at first appeared to be a mild attack of Acute Articular Rheumatism*, and a report on the *Occurrence of Nausea in a case of Pneumonic Infection, with its prognostic value*. (To be published later in full.)

The doctor laid stress on the value of such clinic observations to the younger generation of medical men, and emphasized the study of such phenomena as his cases showed as useful in recognizing the value of symptoms.

In the first case related, the salient points referred to the incipient symptoms being confined to only two joints, the case running mildly for a few days, with only slight temperature, subsequently and suddenly developing cerebral and cardiac symptoms. The points in treatment were directed at the water and milk diet, the use of salicylates, and finally the free application of the mushroom Paquelin cautery point.

The second case was that of an elderly widow of 60, born weak and nervous, usually anemic, who was taken with severe chill, vomiting, pain in left side, with temperature elevation to 104 deg. The nausea and vomiting persisted, causing exhaustion, and attended with marked dyspnea.

Examination showed congestion of the pleura on left side; dullness on this side increased. Nausea and vomiting persisted, but not so severe. Finally the heart became involved, showing tachycardia and arrhythmia. In eleven days the patient succumbed with symptoms of meningitis. Emphasis was laid on the presence of nausea and vomiting governing the prognosis in pneumonia cases.

DISCUSSION.

DR. GESSNER quoted the practice of a surgeon in Buenos Ayres, who treated rheumatism at the joints as a surgical disease, opening the joint and using bichloride of mercury dressings. The mention of this he had seen in the *Annals of Surgery*.

DR. MAGRUDER was called to see a little girl of 8 years of age. The day before she had complained of pain in the shoulder—so painful that any movement was torture. Temperature 101 deg. The diagnosis of acute articular rheumatism was made. There was no further joint involvement, but headache with temperature exacerbation showed next day. The next day following, meningitis developed; child could not sleep, complained of pain in the head and neck.

Next day child had convulsion, and subsequently died with symptoms of spinal meningitis.

DR. STORCK had seen several cases with cerebral symptoms. He had used the salicylate of quinin and the bromide of potassium in these cases.

DR. MARTIN uses a different method of treatment from those suggested. He used steam bath to promote the perspiration desired. This was done by improvising with a rubber sheet and the bed-clothing put in connection with an ordinary steam kettle. He had been able with such an apparatus to raise the temperature under the bed-clothing to 115 deg. The second sweating usually greatly relieves the pain. Without further medication several of his patients recovered. He cautioned against pro-

longing the bath the first and second time, as it tends to exhaust the patient.

DR. HAMILTON JONES asked Dr. Dupaquier if he had used heat to relieve the pain or to increase the perspiration. He asked the question because of a personal experience with rheumatism some years ago. After various treatments at home he had gone to Hot Springs, Ark., where he took about thirty-five baths, getting complete relief.

After his return a fresh attack in his ankle had been precipitated by a glass of beer. He improvised a steam bath and drank water freely, subsequently taking Turkish baths for nearly a year, and every day almost. With this treatment he had recovered, taking no internal treatment excepting bicarbonate of soda.

DR. OECHSNER referred to rest as a prominent therapeutic measure of value. He referred to two cases where he had used splint and plaster of Paris respectively, the rest giving relief to the pain. The argument to him was in the immobility produced, the lack of motion preventing a large amount of pain.

DR. H. JONES suggested that the effect in Dr. Oechsner's cases might have been largely due to the cotton and the moisture created, producing a poultice effect.

DR. OECHSNER insisted that it was the fixation that he referred to.

DR. CONN related a case similar to one of Dr. Oechsner's where he had used immobilization, wherein he had gotten so much subsequent stiffness that he was afraid that ankylosis had resulted. He did not think as highly of this procedure as Dr. Oechsner did.

DR. DUPAQUIER closed the discussion, referring to throat symptoms in rheumatism as important, and stated that he had used the immobilization, but not in acute cases—rather in chronic cases, especially in alcoholics.

At the conclusion of the discussion there was a display of electric apparatus, X-ray, cautery, etc., by the representative of one of the supply concerns.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

RELATION BETWEEN DRUGGIST AND PHYSICIAN.

Much is frequently said and written about the interdependence of the physician and the druggist, one being an adjunct of the other, and of the amicable relation that should exist between the two.

We emphatically believe that such relations are natural, to the advantage of both, and deserve encouragement. Yet, are not the doctor and the retail druggist drifting apart? Is not the current which is carrying the latter further and further away from the proper channel gaining in velocity all the time?

We fear that such is the case, though we say it in sorrow rather than anger. The druggist who does counter-prescribing—and his name is legion—is not only acting illegally, but is often indirectly harming his customer while depriving some physician of a legitimate client. The one who is straining every point to sell quack nostrums and applications is directly damaging his patron and secondarily harming the doctors. Those who sell patent medicines *at cost* and make up by charging high rates for prescriptions are dishonest to the patient and discriminating against the physicians. Even if they make no extra charge on prescriptions, it is discrimination to sell them at full rate while they sell patent stuff at about cost. The latter requires a larger investment and it is not a sufficient excuse to refer to the skill required to prepare prescriptions as an explanation for selling for one dollar a bottle of trash which cost them ninety-five cents, and charging the same price for a vial of solution which contains two cents' worth of chemicals which have been dissolved in water and put up by the bottle-washer.

We have warned the retail pharmacist before and we repeat our warning: the physician will retaliate; he will do so almost unconsciously. Proprietary preparations in the most elegant

and attractive form are multiplying; they are very convenient. Let the pharmacist heed lest he become simply the jobber between the manufacturer and the dispensing physician.

MEDICAL ORTHOGRAPHY MODERNIZED.

The English language has shown its preponderance in all parts of the civilized world. It represents more than any other language the amalgamation of many tongues. The increase in the vocabulary of the English language is due to several sources, among which the appropriation of foreign words and the adoption of etymologic derivatives are only a part.

Words are made to fit conditions, and the perversions of speech known as slang, or vernacular expressions, are grafted on at the instance of the secular press, the makers of fiction, or by the effort of scientific or other writers.

Such a method of growth does not tend to simplify a language, but to complicate it. Compared with German or French, the types of contemporaneous modern languages, English lacks much in method of pronunciation—so much so that constant confusion arises in the attempt of foreigners to acquire the peculiarities of language which age and bad habit have forced upon it.

Simplicity is demanded to overcome such difficulties and to level the language to the possibilities of universal use.

In the effort to do this, naturally niceties of orthographic and etymologic distinction must be sacrificed, but to the ultimate good.

Reform never was attained without the effort, first, and an effort confronted by both prejudice and a basis of reason—still the jesuitic precept must obtain.

We do not anticipate the entire fulfilment of an utopian phoneticism in the orthography of the English language. That would be revolution; but the gradual response to the demand for a simpler method, acceptable and not iconoclastic, can only help and not hurt a language.

The nomenclature in medicine, its present orthographic prodigies and monstrosities will bear pruning and revision, and if, in the application of the remedy, sound words are hurt, the sacrifice only helps the cause.

Medical News Items.

THE AMERICAN MEDICAL ASSOCIATION will hold its fiftieth annual session in Columbus, Ohio, on Tuesday, Wednesday, Thursday and Friday, June 6, 7, 8 and 9, commencing Tuesday at 11 A. M.

The orations will be delivered by Dr. James C. Wilson, of Philadelphia, on Medicine; Dr. Floyd W. McRae, of Atlanta, on Surgery; Dr. Daniel R. Bower, of Chicago, on State Medicine.

THE AMERICAN ACADEMY OF MEDICINE will meet in Columbus, Ohio, just before the meeting of the American Medical Association, namely, on Saturday, June 3, and the meeting will continue through Monday, June 5.

THE NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING BOARDS will hold their annual meeting in Columbus, in the Senate Chamber at the State House, on Monday, June 5.

THE INTERNATIONAL CONGRESS OF DERMATOLOGY AND SYPHILIS will meet this year in Paris, August 2 to 9. The subjects for discussion are as follows:

Dermatology—(1) The Parasitic Origin of Eczema; (2) The Tuberculides; (3) The Etiology and Clinic Forms of Alopecia Areata; (4) Leukoplakia. *Syphilis*—(1) Association of Syphilis with other Infectious Diseases and their Reciprocal Relationship; (2) The Progeny of Hereditary Syphilitics; (3) The Causes of the Generalization of Gonorrheal Infection.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION has changed the date of the next meeting in Chicago, from September 12 to 15 to October 3 to 6, inclusive.

The Autumn Fête, to be known as the American Festival, will be held in Chicago, beginning September 25 and ending October 9, with the laying of the corner-stone of the Federal building, when the President and the Cabinet will be in the city. During this time the railroad fare to Chicago from all points,

will be a flat one-fare rate for the round trip, without the necessity of certificates or signatures. It is hoped that this change of date will meet the approval of the members of the association.

THE EXECUTIVE COMMITTEE OF THE MISSISSIPPI GULF COAST MEDICAL AND SURGICAL SOCIETY held an important meeting March 22, at Scranton, Miss., from which the following is quoted:

“Small-pox having been declared in many parts of the State this executive committee advises and urges vaccination. The secretary was requested to call on the secretary of the State Board of Health to supply to the members of the Mississippi Gulf Coast Medical and Surgical Society vaccine virus in such quantity as to meet the demands of gratuitous vaccination.

“On motion the following was carried: That it shall be the duty of every physician along this coast to report to the chairman of the executive committee any contagious or infectious disease that may appear or come to his knowledge, and he shall appoint three members of the society, including one member of the executive committee, to investigate and report the same, and in case they can not agree they shall request such other authority as may be necessary to arrive at a correct diagnosis. Each and every physician on the coast, members of this society or otherwise, herein promise and agree to perform such duties as may be necessary to arrive at the correct diagnosis and to prevent the spread of the same. It is the opinion and wish of this committee that the inspection should be in the hands of the local physicians, whose every interest is identified with this coast.

“*Resolved*, That the secretary shall state by letter to each member of the State Board of Health the relations that are desired on the part of this society with the State Board of Health in regard to inspectors along the coast, and that the secretary shall draft and submit to the chairman and one other member the letter to be sent to the State Board.

“*Resolved*, Any member of this society attending the meeting of the State Board of Health shall be a delegate from this society.

“*Resolved*, The invaluable service and advice of Surgeon R. D. Murray have been of the greatest good to our section of the country during our troubled experiences of the past two years, and the urgent need of his professional opinion at times to allay

the unsettled feelings of the masses, which disturb so very much the business of our people; therefore

“*Resolved*, That it is an honor, a pleasure, a duty, and the executive committee do hereby request and pray his retention as supervising surgeon of the Marine Hospital Service for our Mississippi Gulf Coast.

“The chairman reported that the Gulf & Ship Island Railroad and the Louisville & Nashville Railroad have agreed to furnish notification and transportation for all inspection along their lines to any point free of charge, and that a telegram or other writing from the chairman to that effect would constitute a pass to any physician holding such.”

THE BOARD OF HEALTH OF THE TOWN OF RAYNE, LA., met on April 5, 1899, and passed the following resolution:

Be it ordained, That upon due notification by the sanitary officer, or his deputy, all occupants or owners of property, situated within the corporate limits of Rayne, will be required, in the interests of the general health of the community, to carry out all orders transmitted to them in regard to—

1. The proper, and as much as practicable, thorough drainage of each and every individual premises.

2. The proper disposal of garbage and all kitchen refuse.

3. The proper disposal of night soil, and the complete disinfection of closets, urinals, etc., with germicides and disinfectant agents, as directed by the sanitary agent or his assistant.

4. The cremation of all combustible refuse matter such as rags, paper, straw, feathers, etc.

5. All dead animals, fowls, fish, and game to be cremated, buried, or hauled out of the corporation.

6. The selling of adulterated or impure milk, tainted meats, fish, vegetables or fruits in public or private markets will be prohibited.

7. Owners of premises where excavations and depressions holding stagnant water exist will be compelled to fill the same at their expense.

8. In future all excavation or sinks in the ground for reception of night soil will be prohibited.

9. All closets, or privies, when practicable, should be provided with movable boxes or jars, the contents of which can be

buried and covered over with copperas, chloride of lime or other acknowledged disinfectants.

10. All privies over ditches or drains must be removed, after proper notice from sanitary officer or his deputy.

11. In future the building of privies over ditches and drains will be prohibited.

12. Any person failing or refusing to comply with the orders of the sanitary officer or his deputy shall be liable to arrest by the mayor of the town of Rayne, upon complaint of the president of the Municipal Board of Health upon the substantiation of the charges by the sanitary officer or his deputy. The party convicted of violating the ordinances of the Municipal Board of Health shall be fined to an amount discretionary with the mayor, not to exceed twenty-five dollars.

Dr. Webb offered the following resolution, which was adopted :

Resolved, that all citizens are hereby notified to appear at the offices of Drs. G. C. Mouton, M. A. Young and R. C. Webb for free vaccination.

AT A MEETING OF THE CROWLEY BOARD OF HEALTH, on call of the president, Dr. W. G. Young, to take action upon the small-pox question, to which some of the citizens have been exposed, the following resolution was offered by A. T. Roberts :

“ *Resolved*, that every citizen within the corporation of Crowley be and is hereby ordered to be properly vaccinated within five (5) days after the first day of April, 1899.”

On motion duly seconded, Mr. Crippen was appointed a committee of one to procure a house, to be used as a house of isolation in case it should be found necessary, also to properly furnish and equip the same with nurses who have had the disease.

On motion of C. L. Crippen, the president was instructed to procure enough points to vaccinate the citizens of Crowley, and the same shall be procured and dispensed at the expense of this board.

On motion the board decided to arrange the details of compulsory vaccination.

THE MISSISSIPPI STATE MEDICAL ASSOCIATION met at Jackson, Miss., April 19, 20 and 21. The president, Dr. C. Kendrick, in his annual address, discussed at length the important sub-

ject of medical legislation, making valuable suggestions on this subject, on the question of national patent laws and in reference to appropriations for and appointments on the State Board of Health.

The following are the officers for the coming year: Drs. R. E. Jones, of Crystal Springs, president; J. L. McLean, of Winona, first vice president; C. B. Mitchell, of Pontococ, second vice president.

The members of the State Board of Health are Drs. H. A. Gant, J. F. Hunter, H. H. Haralson, W. M. Paine and S. R. Dunn.

This, the thirty-second annual meeting, of the association, was one of the best attended ever held.

The next meeting will be held in 1900, at Meridian.

THE ANNUAL MEETING OF THE ALABAMA STATE MEDICAL ASSOCIATION was held in Mobile, April 18-21. Dr. H. A. Moody, the president, called the meeting to order and Dr. H. W. Sledge made the address of welcome in the name of the Medical Society of Mobile County. He was followed by the president, who mentioned the advancement in the past year and outlined the needs of the future. It was a practical address and well received by the delegates, of whom over a hundred were present.

Among the interesting papers read was the Jerome Cochran Lecture, by Dr. J. T. Searcy, entitled "What is Insanity?" Dr. Jerome Cochran was for many years the leading spirit in elevating the standard of the profession of the State and it is to his efforts Alabama has to-day its large and well organized association. This was the first year of the lecture and in the future it will be one of the annual features.

Dr. W. H. Sanders, the State Health Officer, was complimented for his efficient work, and was re-elected for the next five years. Dr. Sanders gave the association a boat ride in the bay, and the Mobile County Medical Society gave a lunch; these courtesies were enjoyed by all the visiting members.

The officers for the coming year are: President—Dr. J. O. LeGrand, of Birmingham.

Junior Vice President—Dr. Samuel G. Gay, of Selma.

Censors to succeed Dr. E. H. Sholl, of Birmingham, and J. B. Gaston, of Montgomery—Dr. E. H. Sholl, of Birmingham; Dr. Glenn Andrews, of Montgomery.

Orator—Dr. Rhett Goode, of Mobile.

Alternate Orator—Dr. T. H. Frazer, of Mobile.

The next meeting will be held in Montgomery.

THE TOWN COUNCIL OF LAKE CHARLES, LA., held a special meeting March 29 to hear a report from Dr. C. L. Richardson, president of the Board of Health, relative to what course of action should be taken to prevent the importation of small-pox into Lake Charles. Dr. Richardson reported that a case of small-pox existed at Mermentau, in the parish, and that some eleven cases were reported in Alexandria. He suggested that steps be taken immediately to bring about a general vaccination of the people of the town. The suggestion met with the approval of all the aldermen and the mayor, and the Board of Health was, on motion, assured that this council would co-operate in all necessary measures to bring about the desired end.

The Board of Health met the same day. The following was adopted:

“*Be it resolved*, That Drs. C. L. Richardson, A. N. Pierce and L. C. Anderson be appointed to vaccinate all persons in Lake Charles not able to pay for the same, and that all persons are requested to call as soon as possible at the above physicians' offices to have the work done.”

THE CHARITY HOSPITAL ALUMNI ASSOCIATION will meet in New Orleans, on May 15, 1899. The Louisiana State Medical Society will follow with its meeting on May 16, 17 and 18. The State Board of Health has changed the date of its quarterly meeting to May 15.

These arrangements have been made so that the meetings should occur about the same time and to take place during the State Fair, so that members of the societies and others interested might take advantage of the reduced rates at that time in force and attendance be stimulated.

DR. R. RUTHERFORD, of Houston, Texas, died March 31, after an illness of some weeks. Dr. Rutherford was State health officer for many years. In many ways he has been prominently identified with the medical profession in Texas. He was a native of Georgia and was about sixty years old at the time of his death.

DR. OSCAR DOWLING, who has been for some time at the Eye, Ear, Nose and Throat Hospital in New Orleans, has located in Mobile to practise this special line.

O'DWYER MEMORIAL.—A committee of over forty physicians, representing sixteen different medical societies of the city of New York and including representatives of both schools of medicine, has been formed for the purpose of doing honor to the memory of Dr. Joseph O'Dwyer.

The first meeting was mainly devoted to organization.

At the second meeting held at the Academy of Medicine, the report of the Committee on Scope and Plan was adopted and now only awaits final action of a meeting of the full committee.

The memorial to Dr. O'Dwyer will probably take an educational form. By the plan now outlined it is proposed to raise a fund of \$30,000, the interest of which shall support two O'Dwyer Fellowships in Pediatrics, open to competition by physicians who graduate in the United States and to be held by the successful competitors for a period of two years.

During this period they must furnish satisfactory proof of their engagement in original research work to a committee of five, one of whom shall be appointed by the President of Harvard University, one by the Dean of the Johns Hopkins Medical School, one by the Provost of the University of Pennsylvania, one by the President of the University of Chicago, and one by the President of the New York Academy of Medicine.

Many details of this general plan are still to be arranged.

THE TENTH COMMENCEMENT EXERCISES OF THE CHATTANOOGA MEDICAL COLLEGE took place at the Auditorium, in Chattanooga, Tenn., March 21, 1899. Dean Cobleigh, after prayer by Rev. A. J. Fristoe, presided and opened the exercises with appropriate introductory remarks concerning the college history and its present prosperous condition. Hon. C. D. Mitchell, president of the Erlanger Hospital Board, followed with the main address of the evening. Dr. J. J. Harrison then delivered the class valedictory, and Professor Holtzclaw addressed the class on behalf of the faculty. There were thirty-one graduates. President Race, of Grant University, of which the college is the medical department, conferred the "degrees."

GERRISH'S ANATOMY BY AMERICAN AUTHORS promises to be an important work. Its editor, Prof. F. H. Gerrish, of Portland, has selected as his fellow-contributors leading anatomists of the country, wisely restricting their number to accord with the best division of the subject. The list includes Professors Bevin, of Rush, in Chicago, Keiller of the University of Texas, McMurrich of the University of Michigan, Stewart of the University-Bellevue College in New York, Woolsey of Cornell Medical College, likewise in New York, and Gerrish himself, who is not only editor but perhaps the largest contributor.

Pictorially, *Gerrish's Anatomy* will be the most lavish work offered on a subject which can already boast of many elaborately illustrated text-books. The engravings number about one thousand, their size is large enough to make visible every detail, colors have been employed more liberally, and lastly the labels of the parts have been conspicuously engraved upon them whereby a glance gives not only their names but also their position, extent and relations.

We shall give our readers a review of the book later.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

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

TOTAL RESECTION OF LEFT ELBOW, PERFORMED TWENTY YEARS AGO. INTEGRITY OF THE NEW FORMED JOINT NOTWITHSTANDING TUBERCULOSIS OF INTERNAL ORGANS. — M. Ollier, in *Revue de Chirurgie*, March 10, 1899, relates the case of a patient who came into his clinic with lumbar pains symptomatic of probable vertebral tuberculosis. This patient was operated on May 10, 1879, and was then 17 years old. He was able in 1894, fourteen years after the resection to carry 17 kilos.

(34 lbs.) on his left arm in full extension; he carried 20 kilos. on the right side. He was at that time so strong as to make more money than his fellow-workmen. To-day you see him after repeated attacks of pleural and pulmonary tuberculosis, fatigued, emaciated and feeble; he, however, kept on working until the appearance of his lumbar pains.

His limbs are thin; the power in both arms, extended, is equal. There is general muscular weakness. The formation of the new joint remained unchanged: the lateral solidity is perfect, flexion almost complete, but extension is limited to 130 deg. There is thus a general constitutional weakness; muscular atrophy exists on both sides, another example of precocious senility which is observed in old resected patients whose general health is undermined from some cause, and especially tubercular invasions. But despite his weakened constitution, the new joint has preserved its anatomy and its flexibility, although the movements of extension are limited. The new tuberosities of the inferior extremity of the humerus can be seen and felt solidly incased in the newly formed olecranon.

The subject of this sketch has for the past twenty-eight years led a very laborious life, either as a tile-maker or a vine cultivator. He began to cough in 1884, and although the two pulmonary apices and his left pleura had been invaded by the tubercle, the resected elbow remained intact.

Mr. Ollier insists on this fact, which is a strong argument in favor of resection in tuberculosis, that when by excision or cauterization all tubercular foci have been destroyed, there is no more risk of general tubercular dissemination than if the limb had been amputated. But such an issue depends on the complete destruction of even every minute tubercular focus.

TOOTH PLATE IMBEDDED IN THE THORACIC PORTION OF THE ESOPHAGUS—TRACHEO-ESOPHAGEAL FISTULA—EXTERNAL ESOPHAGOTOMY—RECOVERY.—M. Gangolphe, in *Revue de Chirurgie* of March 10, 1899, speaks of a young man, 24 years of age, who entered his ward on May 31, 1898, with very alarming symptoms, due to the penetration of a large tooth plate into the thoracic portion of the esophagus, where it had remained some time. By exploring the esophagus he was able to localize the plate at about 25 centimeters (10 inches) from the dental arch.

Radiography confirmed the diagnosis thus formulated: implantation of a tooth plate in the esophagus, perforating the trachea and causing a tracheo-esophageal fistula. External esophagotomy was suggested and performed June 1.

The patient leaves the hospital on the 7th of July, 1898, thoroughly improved; for the two previous days liquids no longer excited coughing. M. Gangolphe calls special attention to this case, of which he knows no similar example, for cases of foreign bodies with tracheo-esophageal fistula generally terminate fatally.

M. Gangolphe abstains from enumerating the irrational therapeutic measures first adopted. A plate should not be dislodged downward, but removed with the bistoury, and not with the de Graefe basket, which is a dangerous instrument.

ANOTHER CONDUCTOR FOR THE GIGLI SAW.—We abstracted for the last number of the JOURNAL Lauenstein's method for carrying the Gigli saw through from one skull opening to another by means of a little wheel on the concave side of one end of a watch-spring. In a succeeding number of the *Centralblatt für Chir.* (March 4, 1899), but too late for our last issue, Podrez, of Charkow, describes an equally ingenious and in some respects superior instrument. This is also a watch-spring on which, at one end, is a small olive with a hole transversely through it; at the other end of the spring is a ring, used as a handle to facilitate the manipulation of the olive as it is pushed onward toward the next opening. The olive is threaded and then pushed on through from one opening to the other. When it merges from the second opening one end of the thread is attached to the Gigli saw, which is then pulled through from the second opening to the first. The watch-spring is left in until the skull shall have been sawn through, when it is removed and the same manoeuvre is repeated for the skull between the second and the third openings. The leaving of the watch-spring in while the Gigli saw is being operated is a decided advantage, since the watch-spring holds the dura away from the saw and makes it much easier to avoid its laceration. The olive has some advantage over the Lauenstein wheel; but the suggestions of Podrez being added to the instrument of Lauenstein the latter would be very much improved.

Department of Obstetrics and Gynecology.

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

ENDOMETRITIS.—McMurtry claims that the size of the uterus, the character of the discharge, and the condition of the mucosa, should be closely considered in giving a prognosis in a case of endometritis. If the endometrium has become thickened, soft and friable, and a muco-purulent secretion is present, a prompt recovery will attend curettage. Curettage is not advised if additional foci of infection are found in the appendages. Any necessary plastic surgery upon the cervix should be done at the same sitting with the curettage. Careless and incomplete use of the curette is considered the greatest abuse of the minor gynecologic operations. Its reckless use is capable of far-reaching danger. Many cases of diseased appendages date from use of the curette in some minor disease. After curettage, Dr. McMurtry advises that the cavity be irrigated with hot sterilized water and an aseptic dressing applied to the vulva. Gauze packing of the uterus is not advocated, as it does not facilitate drainage, but causes considerable pain owing to the uterine contraction it excites. No chemical should be used either before or after the operation.—*American Practitioner and News.*

HEMORRHAGE CONSEQUENT UPON PREMATURE SEPARATION OF THE PLACENTA, especially when accompanied by some lesion of the circulatory system, is almost always preceded by a general malaise, dizziness, vague pains in the abdomen, diarrhea, etc., and usually the blood appears suddenly. The symptoms of internal and external hemorrhage are quite different. Internal hemorrhage occurs if only the central part of the placenta is separated, or when the ovum tightly hugs the lower segment of the uterus, preventing the blood from making its exit; severe abdominal pain accompanied by a bearing down sensation may extend to the back and iliac fossæ, severe vomiting may also occur, and all the symptoms of marked anemia rapidly develop. Increase in the size of the uterus due to the presence of blood is

an important symptom. The membranes are distended to their fullest extent and can be felt projecting from the cervix. External hemorrhage is quickly detected, the discharge being either continuous or interrupted. Most often continuous hemorrhage following premature separation of the placenta is differentiated from that of placenta previa by the absence of pain in the latter condition, and the continuous flow of blood. In placenta previa, bleeding is profuse only during uterine contractions—DR. CUMSTON, *Annals of Gyn. and Pediatrics*.

THE PRESENT POSITION OF THE PESSARY IN GYNECOLOGIC PRACTICE.—In order to gauge the trend of professional opinion on this subject Dr. J. W. Ballantyne examined extensively the opinions expressed in medical literature and consulted the instrument makers. From the manufacturers he found that there had been a steady increase in the number of pessaries sold to the profession during the last twenty years, and a corresponding decrease in the number of varieties asked for. The only ones at present in common use are the ring, the Hodge pessary, or some modification of it, and occasionally a vaginal stem with an abdominal belt. Eight of twenty authors of recent text-books were strongly in favor of pessaries, five authors condemned their use, and seven were skeptic, without even offering an explanation. The supporters of their use claimed that any inconvenience or attention necessitated by the pessary was not to be compared with the trouble and expense of an operation. They undoubtedly relieve symptoms, often procure permanent cures, and are safe if properly adjusted. Opinions varied as to the suitability of pessaries in different conditions. In incomplete prolapse of the uterus, when the perineum could be depended on, the ring, or Hodge-Smith pessary was the one most popular. To this was added a transverse bar if cystocele was marked. In complete prolapse, where the pelvic support is lost, the only possible pessary is the stem, with an abdominal belt, outside straps and a perineal pad. For anteversions most authorities agree that to try to treat them with pessaries was to use means capable of producing as much trouble as the condition to be relieved.

Anteflexion produces more symptoms, and the use of pessaries for its relief was narrowed down to the justifiability of employ-

ing an uterine stem. In posterior displacements the ring and Hodge-Smith pessaries were generally used.—*Edinburgh Obstetrical Society Transactions, Lancet, February 18, 1899.*

AUTO-INTOXICATIONS OF PREGNANCY AND THE PUERPERIUM.—At a meeting of the North of England Gynecological Society Dr. W. E. Fothergill read a paper (*Lancet, February 4, 1899*) saying that there was a large amount of evidence in favor of the conclusion that eclampsia was the result of a general auto-intoxication. The urine, though small in quantity, was low in toxicity, whilst the blood serum was two or three times more poisonous than the serum of health. Necrotic and hemorrhagic lesions were constantly found in the liver in these cases, and it was possible that this organ was chiefly at fault. Jaundice was frequently found associated with eclampsia, and in acute yellow atrophy the liver changes were an exaggerated form of the lesions found in eclampsia. The various disorders of the nervous system, such as peripheral neuritis, poliomyelitis, etc., which occurred in pregnancy, were clearly toxic in origin and it was likely also that melancholia and mania of pregnancy were also intoxications. It was probable that the extra strain thrown upon the various organs of excretion during pregnancy might lead to a loss of equilibrium between the poison production and poison excretion in the body. Although the subject was not yet fully worked out, the auto-intoxication theory formed a good working hypothesis and might afford a new system of classification of the various troubles of pregnancy, a large number of which might in the future be classified under the term "hepatic toxemia," as suggested by Pinard.

G. Bouffe de Saint-Blaise (*Ann. de Gyn.*) discusses this subject exhaustively. He holds that the auto-intoxications which exist normally give rise to morbid phenomena only when the organ of transformation, the liver, and those of elimination, the kidneys, are insufficient. Those which are found in the gravid state are increased by pregnancy, certain special poisons being possibly limited to pregnant women. Accidents occur only when the liver and kidney are incompetent. The liver appears to have a preponderating action, and this may be disturbed by previous illness, chronic renal disease or an accidental affection, such as a slight fever. The action of the kidney,

though marked, is secondary in importance to that of the liver, accidents sometimes occurring even when the kidney is healthy. The toxins retained in the blood are probably multiple and act differently in various individuals, causing such different symptoms as headache, ptyalism, incoercible vomiting and eclamptic attacks. The treatment of auto-intoxications includes the suppression of the formation of toxic substances and increasing their elimination.—*Am. Journ. of Obstetrics.*

Department of General Medicine.

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

TREATMENT OF TETANUS WITH INTRA-CEREBRAL INJECTIONS OF ANTITOXIN. (Continued from April number.) But when put to a practical test in man, though Cattini's and Tizzoni's results were encouraging, the antitoxic serum failed to show any curative action at all or hardly any, in cases where tetanus made its appearance for the first time. Of course, in cases of long standing (chronic tetanus) it showed its preventive action in destroying the toxin that was still in process of formation and that would if absorbed give rise to more contractures, at some future time, but it never had any effect on the toxin already formed and in existence in the system. Therefore, it became necessary in order to reach the toxin in the system with the antitoxin, to know more exactly its manner of spreading and of acting in the organism.

The following showed that the antitoxin and the toxin never met. Large doses of antitoxin were injected in animals as soon as tetanus appeared, all in vain; for the animals died some twenty or thirty hours later whilst their blood was loaded with antitoxin. Again, immunized animals, with antitoxin running in their blood, died when toxin was injected in their nervous system. Now Marie explained why the antitoxin and toxin never met by finding out that the toxin travels chiefly along the nerve tracts directly to the cord instead of being carried by the blood vessels, for it takes ten times more toxin to kill an animal

by way of intravenous injections than by the subcutaneous injections, as in the latter the toxin travels as stated along the nerves to the cord.

Marie, indeed, showed that contracture always began in the region where the hypodermic injection was made. If the injection is made directly into a nerve trunk, all its region is made to show contracture, but if the nerve is severed first the injection of fatal doses of toxin in its region remains without effect.

This showed the special affinity of the nerve cells for the tetanic toxin. Indeed, Wasserman and Takaki, after mixing with some brain and cord of a healthy animal the same dose of toxin which alone killed a mouse, injected the mixture into a mouse and never obtained one sign of tetanus. Wasserman, like Ehrlich, thought at first that the nerve cells had formed some antitoxin which had destroyed the toxin. But Marie asserted that the toxin was not destroyed; it was attracted and incorporated with the cells by affinity, for Metchnikoff showed that the mixture was alive yet, causing tetanus in guinea-pigs; finally Knorr, by soaking the mixture in distilled water, liberated the toxin after a while. It was therefore not destroyed, but incorporated by affinity as it came in contact with the nerve cells. But the degree of affinity varies according to the region of the cerebro-spinal axis; it is not identical all along the axis. Thus, in man, trismus being always the first contracture to appear, whatever may be the location of the entrance door of the tetanic toxin, it must follow that the centre of the muscles of the jaw, in man, have the greatest affinity for the toxin. At this phase of the problem, Roux and Borrel have stepped in with their experiments. They had brought the toxin directly in contact with the cerebral cells of rabbits and guinea-pigs and had caused a cerebral tetanus distinct from ordinary tetanus, showing that as soon as the toxin comes in contact with the nerve cells it is subject to immediate fixation, giving rise to symptoms that vary according to the functions of the cells united with the toxin.

THE COLD WET-PACK IN BRONCHO-PNEUMONIA OF CHILDREN.—
Dr. Grippat, of Angers, advises in broncho-pneumonia of children the following method:

Take, for instance, a child twenty or thirty months old. Pro-

cure a piece of soft impervious taffeta (thin silk fabric), a piece of muslin folded over eight times in thickness and three pieces of cord or tape. Both the taffeta and compress—by the way, as a compress any piece of plain Turkish-bath towel or of some old curtain can be used instead of muslin—should be cut to measure 75 centimeters by 35 centimeters.

The child is stripped and held sitting on the knees of an assistant who keeps its little arms up. The compress dipped in cold water at the room temperature, say 15 deg. C., is rapidly applied first on the back from the neck down and wrapped around the whole trunk, in order to cover it well, a little over one turn. The taffeta is then placed in the same manner and the tapes are tied to secure the pack, the first one passing in the armpits. Now a blanket is folded about the child, who is kept in the arms or put back to bed.

During this application, which should be made in less time than is required for describing it, the cold sensation causes the child to scream from the first. This is rather an advantage, as it brings about a distention of the lungs, thus combating the usual ill effects of threatening atelectasis and an early elimination of bronchial secretions. But in proportion as the wet pack is repeated the child's screams decrease, and its apprehensions often give way to evident content. At all events, the child soon quiets down as it breathes more deeply. Other local improvements take place, the cough becoming loose, painless, the cry which it caused disappearing, while the general symptoms abate also; the temperature goes down rapidly, the nervousness yields, sleep becomes sound and the digestive functions are amended. Moreover, a capital point, diuresis is stimulated, carrying away the toxins, which are of more ominous import than dyspnea, or the loss of a few pulmonary lobules. As a consequence convalescence is short.

The danger lies in hyperthermia, so it goes without saying that the temperature must be taken and recorded most carefully at least six times a day, watching the defervescence.

The wet-pack is reapplied at intervals which vary according to cases and also to the attendant's practice. There are some who repeat it as often as every half hour, others every hour or every two hours.

As a rule, Dr. Grippat orders it every two or three hours

during the day and every four hours during the night, the compress to be changed every time, and the same process to be carried out for three or four days, at least.

When a cold compress is placed on a hot bare skin at a temperature of say 40 deg. C., there is at first an energetic contraction of the capillaries accompanied by chilliness, then a reaction occurs, the capillaries swell, blood circulates in them more freely while the pack is being heated, thus removing a corresponding degree of caloric from the body. Perspiration soon follows and there emanates a warm vapor which the patient inhales unceasingly. When the pack is removed the surface it had covered is found to be in a state of moderate congestion and the large red surface remains so for the benefit of the pulmonary circulation and of phagocytosis.

The chief guide for the use of the cold wet-pack is the thermometer, as its chief purpose is to reduce hyperthermia, the other symptoms being, so to say, mere accessories in considering the effects of the cold wet-pack.—*Tribune Médicale*.—*Gaz. Méd. Belge*.

Department of Therapeutics.

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

TREATMENT OF TABES.—Syphilis should be thoroughly treated if it stands in an etiologic relation to the disorder. The general health of the patient is to be kept up in suspected tabes. The stomach is to be carefully observed, and the rheumatic or other diathesis is to be treated. Continue small doses of iodide of potash and bichloride of mercury, which are valuable alterative adjuncts in most cases from any cause. Cod liver oil is the nutrient par excellence. Diet is paramount and should be suitable to the individual case. Donovan's solution, gtt. v to x, t. i. d., and auri et sodii chlor., gr. $\frac{1}{60}$ to $\frac{1}{15}$, sometimes act well as alteratives. Antipyrin and phenacetin are the most valuable analgesics, but may cause circulatory depression. Use morphin only as a *dernier ressort*, else you add to tabes another serious malady. The phosphates and testicular fluid injections have proven of value as an aid to nerve nutrition.

Suspension by the Mitchell or Lombard apparatus is of benefit in some cases. This is probably due to stretching the membranes of the cord, freeing the posterior roots, and hastening circulation in the posterior columns.

The training of co-ordination, consisting of having the patient stand with eyes open, then closed, approaching the fingers to the nose, and also walking upon a straight line, and flexions of the limbs and trunk, is of the utmost value. The more extreme gymnastic measures should be used in the order of strength of the patient—*i. e.*, whether he is in the incipient, the ataxic, or paralytic stage.

Cauterization of the spine may alleviate pain. Bromides may occasionally be required to allay irritability of the nervous system. Strychnin is apt to do harm, but small doses of *nux vomica* may do good in toning up the digestive tract. Keep the bowels well open, and the urine normal by diuretics.

Electricity in the form of faradism and descending galvanism and franklinization are, in this order, agents of value. Hydrotherapy has an important role in hot and cold douches applied to the spine for five minutes daily.

A rest treatment may be essential for the best results in stubborn advancing cases. Such patients should never exercise to fatigue, and should be in the fresh dry air much of the time, especially at high altitudes, as this favors peripheral circulation. Massage and electricity, properly applied, are most valuable. The use of stimulant liniment rubbed well over the surface of the body has proven also of great value in stimulating circulation, so deficient in this class of patients.

The following prescription has done well in the writer's hands :

℞ Ammon. chlor.....	ʒiv.
Glycerin.....	f ʒi.
Tinct. capsic.....	f ʒss.
Aqua menth. pip. q. s. ad.....	f ʒxii.

M. et Sig. : Rub on body daily for twenty minutes with massage.

PEARCE—*Therapeutic Gazette.*

THE PAINLESS TREATMENT OF FISSURED NIPPLES.—At the meeting of the Paris Obstetrical Society held on November 10, 1898, a paper was read by MM. Maygrier and R. Blondel upon the "Treatment of Forty Cases of Fissured Nipples at the Charité Hospital" (*Lancet*).

They had dressed the cracks with orthoform, which brought

about complete anesthesia during suckling and kept the cracks aseptic.

The application of the powder causes only slight smarting. The infant was put to the breast a quarter of an hour afterward, and sucked eagerly, as orthoform has neither taste nor smell. The anesthesia persists for some time. MM. Maygrier and Blondel made trial of orthoform powder alone, of orthoform followed by a moist dressing of boric acid, and finally with a strong alcoholic solution of orthoform dropped into the cracks. They considered this last method the best, for it caused no more initial smarting, but it quite did away with infection of the breast, probably because the solution was able to penetrate into the recesses of the fissures.—*The Therapeutic Gazette*.

THE TREATMENT OF WHOOPING COUGH BY THE INHALATION OF MEDICATED OXYGEN.—In a thesis presented to the university of Paris, and quoted in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, Dr. M. Lacroix gives the results of his experience in the treatment of twenty-five cases of pertussis by inhalations of oxygen, medicated with certain antispasmodics. The substances used were bromoform, bromide of camphor and cherry-laurel water.

About forty-eight quarts of oxygen are used daily in each four inhalations, viz., twelve each time, about 8 A. M., midday, 4 P. M., and 8 P. M.

The advantages alleged for this treatment by Dr. Lacroix are:

It modifies the excesses of cough, diminishing them both in number and intensity.

It obviates complications, such as broncho-pneumonia, hernia, prolapse of the rectum, epistaxis, vomiting, constipation, fetid stools, etc.

It strengthens the organism, relieving the general conditions and placing the organism in good form to resist the invasion of infectious diseases so frequent after whooping cough.—*New York Medical Journal*.

AN APPLICATION FOR PRURITUS ANI.—

℞ Sodium hypophosphite	30 parts.
Carbolic acid.....	5 parts.
Glycerin.....	20 parts.
Distilled water.....	450 parts.
M. To be applied on compresses.	

—*Riforma Medica*.—*New York Medical Journal*.

Miscellaneous.

THE ACCIDENTS FROM VACCINATION—HOW TO PREVENT THEM.—The recent revolution in the aspect of vaccination restrictions and regulations in Great Britain has caused a great deal of serious thought regarding the reasons therefor.

The lay public has quietly submitted to any dictum of the medical profession, and its selected representatives on Boards of Health, for many years without remonstrance or even resistance.

In the ignorance of that same medical profession, crude methods of practice have obtained in many fields of practice. In none has this been more patent than in vaccination.

For years the usefulness of this procedure has been accepted, because it has been repeatedly demonstrated. The carelessness in method, the lack of due precaution in the preparation of material used and the promiscuousness of the application of vaccine have suddenly brought down a due and merited result.

Accidents running the whole gamut of complications, from simple infections to deep-seated constitutional afflictions, have been recorded within the last few years.

None of these have been more prominent or more marked than those which affect the skin itself.

From the "sore-arm," conditions have been observed affecting limited localities on the body up to serious exudative and septic affections directly traced to the original vaccination lesion.

In this category we might enumerate simple impetigo, furunculosis, erythema multiforme, pemphigus, psoriasis, herpes zoster and herpetic dermatitis. We have even seen hemorrhagic purpura and pronounced abscesses follow simple vaccination.

In an article published in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL* (February, 1896), we classified the eruptions of vaccination as they occurred with and subsequently upon the lesion of inoculation.

The multiplication of these accidents, simple and severe, has created a natural objection on the part of the laity, arguing the infrequency of exposure to small-pox, and unwilling to risk the

possible dangers of vaccination which threaten under present methods.

The average practitioner of medicine blindly accepts the fact that vaccination affords certain immunity against small-pox, and believes this bit of philosophy from its historic value. He does not usually question either the source or the quality of the virus used.

To the minds of some practitioners the objections of the laity carry much weight, and they have joined themselves in a crusade against the procedure, instead of really endeavoring to educate themselves upon the fault responsible.

We believe utterly in the complete value of vaccination as a preventive of small-pox, and have convinced ourselves that under proper conditions, with the right sort of vaccine lymph, that there should be first of all no accidents, and secondly no reason for the popular objection.

On this account the article we are writing has been projected.

What is necessary to prevent the accidents of vaccination?

In what does vaccination consist?

What steps should be taken to remove popular prejudice?

In the first place the promiscuous distribution of vaccine lymph from the dispensaries of commercial institutions should be stopped.

Vaccine should be made a perfect laboratory product and should be dispensed as antitoxins are from qualified laboratories, in charge of intelligent and conscientious men.

This should be as far as possible under State or national direction. In this way the purity of the lymph could be assured, for, as at present permitted, epidemics of infectious cutaneous diseases are not at all uncommon as a result of impure vaccination lymph.

The method usually adopted by boards of health is open to the severest criticism and condemnation. We have seen the representative of a board of health publicly vaccinate a whole district of children with absolutely no pretension to aseptic precautions. The children were lined up with their sleeves rolled up above the elbow, and were taken one by one and scratched with a vaccine point, each successive point being dipped in a more or less dirty glass full of more or less dirty water. The children then were lined up until the site of vaccination had

dried; the whole process, from start to finish, being a criminal procedure; a surgical wound had been created on a septic surface, after which it was still more exposed to the conditions of infection which a small room, crowded with the worst class of people, could occasion.

Is it any wonder that any sort of accident of infectious nature should occur?

I have likewise seen a couple of hundred of steerage passengers on a transatlantic steamer subjected to the same sort of treatment, one point or quill being often used for two subjects.

In what does vaccination really consist?

In the inoculation of an individual with a specific virus, which, after due incubation, produces a lesion peculiar to the disease from which the original virus was obtained.

When is vaccination complete?

As soon as the first lesion of vaccinia shows itself.

What is the first lesion of vaccinia?

The vesicle, usually.

Vaccinia does not differ from its congeners, varicella and variola. These diseases have as their typical eruption a successive papule and vesicle, which in varicella usually does not pustulate. If in either disease the pustule did not form, these diseases would be none the less varicella and variola. If it were possible, as it sometimes is, to prevent the formation of pustules in these diseases, they would be none the less variola and varicella. Not infrequently, in vaccination, after from five to eight days, there is itching, a papule, or a vesicle, inflammation subsides and the process stops.

Has vaccination been complete?

Is it necessary for the subsequent pus infection to occur, bringing in its train the possibility of further septic infection, in order that we may declare vaccination complete?

Is it not rather an indication that the degree of resistance in the individual has prevented a severe intoxication with the original inoculation?

It is our belief, and it has been our practice, both as a teacher and a physician, to declare vaccination complete as soon as the vesicle has formed. This belief and practice has successfully prevented, for a period of nearly six years, any accident from vaccination, either direct or indirect.

First of all, the area to be inoculated is thoroughly washed with soap and water, rinsed till no soap remains, then sponged freely with alcohol or ether.

Two separate inoculations are made with two separate points. Then a layer of borated cotton is placed over the wound and either rubber tissue or a plaster holds the cotton in place. On the third, and until the seventh or eighth day, the wound is watched. When the vesicle appears it is broken, the surface washed with bichloride solution, or a 5 per cent. carbolic acid solution, and an antiseptic dressing applied.

This procedure has been adopted among persons who have been exposed at the time or subsequently to small-pox. I have vaccinated myself in this way five times, and never have had even any areola of inflammatory redness about the lesion when it has formed.

If this or a like method of cleanliness were employed both in private practice and in public offices, we believe that the accidents of vaccination would attract less public notice. because there would be none to be observed.—DR. ISADORE DYER, in March number *Charlotte Medical Journal*.

A PARISIAN PHYSICIAN TOOK INSURANCE against disease. The insurance agent promised the practitioner to assign him examinations and to have him appointed confidential adviser of the society for the district where the physician resided. The first instalment of the insurance policy was paid by the physician, but no examination-assignments came to him, whereupon he refused the payment of further instalments. After the lapse of seven years the insurance society brought suit against him for non-payment of dues during said seven years. The courts dismissed the suit and the society appealed. The higher tribunal not only confirmed the finding of the lower court, but condemned the society to all the costs besides the payment of the lawyer's fee of the defendant. This judgment was final and the society had to pay.

TANNOPIN.—In the *Heilkunde*, Dr. Landau in Krakau (Galicia-Austria) reports seventy-nine cases in which tannopin has been administered to children in stomach and intestinal affections. Twenty-six of these seventy-nine cases were of acute gastro-enter-

itis; forty-two, acute enteritis; six, cholera infantum; and the remainder, typhoid fever and chronic catarrh of the stomach. The majority of the sick children were from three weeks to fifteen months old. Eight cases only were as old as two years and a half to eleven years. The doses ranged from 0.25 gr. to 0.5 gr. without any other drug addition. Some of the cases more minutely described show that, on the average, normal stools set in after two or three days. But also in the other cases tannopin has proved to work promptly. Dr. Landau concludes by saying that tannopin is a remedy without taste nor smell and therefore especially to be preconized in practice among children. It is altogether innocuous and on account of its prompt effect it can be especially recommended in the intestinal troubles of children.

OREXIN-TANNAT.—Dr. Künkler, in Kiel, communicates, a number of cases in which orexin-tannat has proved to be a very appropriate remedy in practice among children, especially to raise the appetite. In several cases in which anorexia during convalescence from scarlatina, pneumonia, etc., existed, the efficacy of the remedy has sometimes been delayed for a more or less long space of time, but a decidedly negative effect was never observed by Dr. Künkler. The remedy was easily taken and well tolerated, being almost tasteless. A special diet was, during its use, not necessary.—*Allgemeine Medicinische Central Zeitung*.

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 Venereal Diseases. By JAMES R. HAYDEN, M. D. Lea Bros. & Co., New York and Philadelphia, 1898.

Less than two years ago we took pleasure in recommending the first.

edition of this work. That a second edition should already be in active distribution is good evidence that our judgment was well founded.

This edition is thoroughly revised, is enlarged by a chapter on the care and use of urethral instruments, has over thirty pages more and an addition of seven illustrations.

We can only repeat and emphasize our first endorsement and predict continued success for the well gotten-up manual.

C. C.

Text-Book of Anatomy, Physiology and Hygiene. By E. FRANKLIN SMITH, M. D. William R. Jenkins, New York, 1899.

This handbook is first of all practical and just comprehensive enough to be of service to the average reader or student. The material is arranged in logical detail according to the title of the book.

The particular and notable things in the work are the chapters on emergencies and sanitation and the glossary in the back of the book.

DYER.

International Clinics. A Quarterly of Clinical Lectures. Vol. IV. Eighth Series, 1899. J. B. Lippincott Company, Philadelphia.

This volume of the Clinics is full of interesting lectures and of a wider variety than ordinarily. Among the many articles of interest, that on Scurvy and Purpura by Dr. Oliver, and that on A Case of Double, Symmetrical, Buttonhole, Visual Iridectomy by Dr. Bruns (of New Orleans), are notable. Both are practical, but the detail of Dr. Bruns case is unusually well presented and the illustrations are perfect of their kind.

DYER.

Diseases of the Skin. By GEO. THOMAS JACKSON, M. D., Professor of Dermatology in the Woman's Medical College of the New York Infirmary and in the Medical Department of the University of Vermont, etc. Third Edition: Lea Bros. & Co., New York and Philadelphia, 1899.

The rapid appearance of this edition of Dr. Jackson's work after the second edition is an evidence of its popularity. Except for a few additions, some careful revision, and added illustrations the book is much like its previous edition. The alphabetic arrangement of the subjects is adhered to, and all titles are given, making the book an excellent glossary on skin diseases.

We are pleased to note that place has been notably given to "Bulpiß" first described and reported in the JOURNAL in 1895, by Dr. Lerch, to whom due credit is given by the author.

DYER.

PUBLICATIONS RECEIVED.

Progressive Medicine, Vol. 1, Edited by Hobart A. Hare, M. D.—Lea Bros. & Co., Philadelphia and New York, 1899.

International Clinics, Edited by J. Daland, M. D., J. M. Bruce, M. D., and D. W. Finlay, M. D., Vol. IV, 8th Series.—J. B. Lippincott Company, Philadelphia, 1899.

Sexual Impotence, by Victor G. Vecki, M. D.—W. B. Saunders, Philadelphia, 1899.

Nature and Consequences of Anomalies of Refraction, by F. C. Donders, M. D., Revised and Edited by Charles A. Oliver, M. D.—P. Blakiston's Son & Co., Philadelphia, 1899.

Cyclopedia of Diseases of Children, Vol. V, Supplement, Edited by William A. Edwards, M. D.—J. P. Lippincott Company, Philadelphia, 1899.

Transactions of the American Pediatric Society, Edited by F. M. Crandall, M. D., 1898.

Growing Children, by E. Noble Smith.—Smith, Elder & Co., London, 1899.

The Bertillon Classification of Causes of Death—Issued under the auspices of the American Public Health Association, 1899.

The Modern Therapeutics of the Farbwerke Vorm: Meister Lucius & Bruening Medicinal Products, 1897.

The International Medical Annual, Seventeenth Year.—E. B. Treat & Co., New York and Chicago, 1899.

The Philosophy of Memory, by D. T. Smith, M. D.—John P. Mortyn & Co., Louisville, 1899.

The Principles of Bacteriology, by A. C. Abbott, M. D.—Lea Bros. & Co., Philadelphia and New York, 1899.

Manual of Organic Materia Medica, by John M. Maisch, Ph. M., Phar. D.—Lea Bros. & Co., Philadelphia and New York, 1899.

REPRINTS.

Appendicitis, by H. O. Walker, M. D.

Prostatectomy, by Parker Syms, M. D.

The Naval Personnel, The Naval Academy at Annapolis—Speeches of Hon. Adolph Meyer, of Louisiana, in the House of Representatives.

A Ring-Pleximeter—Finger Protector for Handling Head-mirror—New Hearing Device, by Emil Amberg, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the City of New Orleans.)
FOR MARCH, 1899.

CAUSE.	White.....	Colored...	Total.....
Fever, Malarial (unclassified).....	3	2	5
“ “ Intermittent			
“ “ Remittent			
“ “ Congestive.....	3	1	4
“ “ Typho	1	1	2
“ Yellow			
“ Typhoid or Enteric.....	3	2	5
“ Puerperal			
Influenza.....	8	12	20
Measles			
Diphtheria			
Whooping Cough	1		1
Apoplexy	12	3	15
Congestion of Brain.....	8	4	12
Meningitis	15	5	20
Pneumonia.....	42	34	76
Bronchitis	14	19	33
Cancer.....	8	6	14
Consumption.....	45	54	99
Bright's Disease (Nephritis)	30	25	55
Uremia	1	1	2
Diarrhea (Enteritis).....	10	7	17
Gastro-Enteritis	6	1	7
Dysentery.....	1	1	2
Hepatitis.....	2		2
Hepatic Cirrhosis	3	1	4
Peritonitis.....	2	1	3
Debility, General	2	2	4
“ Senile	23	11	34
“ Infantile	2	3	5
Heart, Diseases of.....	32	26	58
Tetanus, Idiopathic			
“ Traumatic	1	3	4
Trismus Nascentium.....	6	7	13
Injuries	11	8	19
Suicide	4		4
All Other Causes	98	52	150
TOTAL	397	292	689

Still-born Children—White, 21; colored, 11; total, 32.

Population of City (estimated)—White, 210,000; colored, 90,000; total, 300,000.

Death Rate per 1000 per annum for month—White, 18.94; colored, 32.44; total, 22.97.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.02
 Mean temperature..... 64.00
 Total precipitation..... 2.71 inches
 Prevailing direction of wind, south.

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

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Original Articles.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of 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.]

SIGNS AND TESTS OF DEATH.

BY JUSTIN HEROLD, A. M., M. D., NEW YORK.

Formerly Coroner's Physician of the City and County of New York; Late House Physician and Surgeon of Saint Vincent's Hospital, New York City; Member of the New York County Medical Association, New York County Medical Society, New York Medico-Legal Society, New York Society of Medical Jurisprudence, New York Academy of Medicine, German Medical Society of the City of New York; Author of "Herold's Legal Medicine."

[CONCLUDED FROM APRIL AND MAY NUMBERS.]

5. LOSS OF SENSATION AND OF MOTION.—The absence of the power of motion, and of sensation, are unimportant signs of death in my estimation. The same conditions obtain in all cases of suspended animation, asphyxia, trance, syncope, apoplexy, catalepsy, and in some diseases and injuries of the skull and its contents. At death, or immediately thereafter, there is a general relaxation of the muscular system, the muscles of the lower jaw, relax, allowing a dropping of that bone. The joints become flexible, the tone of the muscles disappears, but their contractile power remains; moreover, muscles that are contracted by living forces at the time of death, as in cases of poisoning by strychnia, do not necessarily become relaxed in death. Persistency of muscular contractility after death, and the disappearance thereof follow a fixed order, the first parts to present this change being the neck and trunk; next the lower extremities and lastly the upper, while its departing follows the same order.

The duration of this phenomenon is shortened by its exposure to warmth and moisture, also to ammoniacal, carbonic, and sulphuretted hydrogen gases; it is unaffected by carburetted hydrogen, sulphurous acid, and hydrogen gases, nor is it diminished in cases of asphyxia. The continuance of this property of muscular fibre is considerably modified by the nature of the disease of which the person examined died. In cases of persons who had died of peritonitis, it disappeared in three hours, in tuberculosis and malignant diseases in from three to six hours, in death from mortal lesions of the heart, or profuse hemorrhages in about nine hours; these observations correspond to those of other authors. In apoplexy with paralytic symptoms, in about twelve hours, and in adynamic fevers and pneumonia, in about twelve to fifteen hours. Softening or want of elasticity of the tissues of the body which comes on soon after death, is the first of the changes resulting from the destruction of their physical properties. The parts of the body on which it rests will become flattened, and the skin will present the marks of any peculiar figure upon which it may have been lying, and the skin and muscles will not resume their original condition upon the removal of the pressure which, either by the weight of the body itself, or from external sources, has been applied to the parts which show this loss of elasticity. This flattening of the dependent parts has been considered a valuable sign or indication of the reality of death. It is true that this insensible condition of the muscles may exist in life and not lead to death, but the insensibility and loss of power in the muscles that occurs after death is a characteristic sign of death, and occurs in the muscles of the lower jaw, eyelids, limbs and joints, the two latter becoming flabby, soft and flexible. The muscles become hard and contracted as the body cools, stiffening the joints and presenting an unyielding corpse; the muscles may become flaccid and contractile, rigid and incapable of contraction, or relaxed and incapable of further contractibility. Insensibility coming on at death is complete, while that which follows hysteria, or certain general anesthetic conditions, present the same conditions. Loss of motion and falling of the lower jaw have been considered as certain signs of death, but the latter is not a constant sign. At death the muscles become immobile, but the sphinc-

ters relax; contractility of the muscles lasts for some time, then disappears; insensibility and inability to move often precede death, and as we have seen occur with disease, do not necessarily produce death. The condition of the muscles of the face at times depicts the mode of death. I have observed this in many instances; it is virtually reading death in the face. The expression of the muscles of the face at the time of death becomes a fixed one—reposeful when killed by the knife, painful when killed by the bullet. After the action of the heart has ceased, usually in about three hours, the entire muscular system loses its excitability. Though the body be dead as a whole, certain parts may continue to retain an independent vitality after this so-called somatic death. This is seen especially in the muscles, which may retain their electric contractility from two to three hours after death.

(a) *Electrical Test.*—The existence of electrical contractility in the muscles of a body supposed to be dead indicates life, or death within a period of two to three hours. The muscles will respond for a certain time to electric or other stimuli for some time after death. The absence of muscular irritability upon application of an electric stimulus of galvanic strength has been laid down as a certain criterion of death. The nature of the disease, which caused the death of the subject experimented upon, exerts considerable influence. To get the irritability of the muscle you must use the galvanic current, though the existence of muscular irritability may be demonstrated by simply pricking or otherwise irritating a nerve of motion leading to the part. This property is usually lost in from eight to twenty hours. I experimented in this manner on the bodies of 402 persons and in 107 irritability asserted itself within an hour, in sixty-seven it showed its presence at the end of the second hour, and in four at the end of the third hour, the balance presented no muscular irritability. The electric current affords almost a certain method of ascertaining whether life be extinct or not, by its success or failure in producing muscular contractions. The shocks must be used at different tensions and intermittingly. Unless it is used skilfully it will fail. The Faradic battery may also be used, by attaching it to an electric needle, the needle being stuck into the muscle to be experimented upon. The most elementary machines may suffice for the purpose; if the same

determines on the arm of a living being a slight contraction, and no contraction whatever on the muscles of the face of the dead person, one might affirm that the person is dead, whereas the muscles of the face are the first to lose their contractility, consequently care must be observed in giving an opinion, as to the certainty of death, in these particular cases; if the slightest trace of contractility be observed the same apparatus should be without delay employed to electrify the heart, and if death is only apparent, one might thus, in restoring the action of the heart and the respiration, restore the subject from apparent death to real life. Cadaveric rigidity being liable to occur before death it is prudent to wait for the first sign of putrefaction before declaring that rigidity and consequent muscular irritability has been absent.

(b) *Heat Test*.—Various means may be employed in applying heat to the skin. Melted sealing wax may be used, for instance, by dropping it upon the skin. A candle flame may be used until a vesicle forms on the skin. I used the sealing wax in forty-two cases without any response as regards sensibility or motion. A needle may be inserted for a quarter of an hour, and for a quarter of an inch, through the skin into the muscle, heating the part protruding with a spirit lamp. If a blister is produced by the application of these tests, and it is opened and contains a serum rich in albumin whilst the cutis vera, after the cuticle has been removed, presents a reddened appearance, more especially if after a short interval a deeply injected red line forms around the blister, absolute evidence is afforded of the vitality of the part to which the heat was applied, and exceedingly strong confirmatory evidence of the life of the person. If a blister formed by the application of flame to the body contains air, or a little non-albuminous serum merely, the cutis vera after the removal of the cuticle appearing dry and glazed, more especially if, after an interval, no red line becomes visible around the blister, the evidence is absolute that the part so treated was dead, whilst the presumption is strong that the person himself was dead. In a dead body a burn may cause a blister, but it will not form an areola. Let a drop of melted sealing wax fall on a limb that has just been amputated, and you will succeed in producing a blister. The test of burning is therefore a doubtful one. Heated flat irons may be applied to the heels of dead per-

sons of whose death it is desired to obtain assurance. Another sign is to apply the flame of a candle at the distance of half an inch from the extremities of the fingers or toes; if death is real the epidermis of that part of the finger exposed to the flame dries up and separates from the cutis. It forms an air blister, which bursts suddenly with a disengagement of gas which is sometimes strong enough to blow the candle out. This is not a conclusive or certain sign of death.

I have applied this test in 17 cases but have had no positive result one way or the other. A flame held close to the skin will form a blister; if this blister contains serum the person is still alive, but if it contains air only, the person is dead. I have seen a blister containing serum produced after death, in applying alcohol cups for the purpose of ascertaining whether blood would flow after death or not, consequently I hold this as an unreliable test. A burn on the body of a living person usually produces a blister which is surrounded by a reddish areola, and which contains an albuminous liquid. When this blister is opened, a network of small dilated blood vessels is seen. Although this is the usual result, it is not a constant condition in life; for instance, the albumin may be absent from the serum. If the same individual died at the moment he was burnt, blisters are produced, but as a rule they contain no serum and there is no congestion. Heat may also be applied to the skin, by means of a piece of iron or steel, heated red hot for at least the space of a ten seconds. If no blisters have formed, filled with fluid, then death is supposed to be a certainty. I used this test in 72 cases and in six of them where death had positively taken place within three hours, I succeeded in forming blisters.

(c) *Caustic Test.*—If caustic be applied to the skin of those really dead, either no eschar is produced or the skin turns yellow and transparent, but if the caustic be applied to the skin of living person, the eschar produced is of a black or reddish brown color. I applied strong caustic to the bodies of 85 dead persons, and in two of them produced eschars similar to the eschar produced in the living body.

6. MUSCULAR FLACCIDITY AND CONTRACTILITY.—We have now a case of a certainly dead body to deal with. What are the first changes that take place, in a general way? The muscles have taken on a condition of flaccidity, their tone has disappeared,

they are in a state of inaction as far as voluntary movement is concerned, the masseter and other muscles allow the jaw to drop, the muscles that form the eyelids are so flaccid as to give the eye the appearance of being half closed, the muscles of the limbs have so far lost their tone that the joints become flexible, and the limbs flabby and soft. To determine whether the muscles are contractile or not was discussed under the heading of *loss of sensation and motion*. This period of muscular flabbiness and softness precedes the occurrence of rigor mortis and must not be confounded with the softness of the tissues preceding putrefaction. Flattening of the soft parts of the body takes place, the parts become very pliable, and may remain in this condition from three to twenty-four hours. Of my 7900 cases observed, I found muscular flaccidity in 1018. This stage of muscular flaccidity produces a more than usually placid expression, with marked pallor; at times a drawn, contracted, painful expression, with reddened countenance, may be remarked. The peculiar sharpness of the chin, and of the nose, the paleness of the lips, the sunken eyes, the temples hollowed out, the cheek bones prominent, the forehead dry, the brow wrinkled, the skin livid, these are the principal and chief features found immediately after death, and are almost characteristic, consequently called by some authorities "*Facies Hippocratica*." Identification of a body may be so difficult, from these changes produced immediately after death, that parents, brothers and sisters are not able to identify their own, and, on the other hand, these changes may be entirely absent after death, or they may be well marked during life. The pale ashy color that in some cases covers the entire body is not a sign of death, for the reason that those dying of yellow fever and other diseases may show the same color. Death-like color frequently occurs in syncope, collapse and chills and fever; reddish color remains for some time after death in those who had in life a ruddy complexion. Jaundiced skin never becomes white after death. Ecchymotic spots always retain the color they had at death, as I might as well say here that the so-called "*Facies Hippocratica*" is an unsafe sign to go by, it is sometimes decidedly absent in sudden death. Pallor of skin is due to absence of circulation, still in all cases of death there is absence of circulation and not always pallor of the surface. Ulcers and burns may show reddened and livid rings around

their edges, after death; tattoo marks, the spots of purpura hemorrhagica, bruises and ecchymotic spots also remain.

7. **CADAVERIC ECCHYMOSES, LIVIDITY OR HYPOSTASES.**—Of this change I noted 7802 instances in the observations which covered the 7900 cases. Consequently it was noted in nearly all of my cases, either post-mortem ecchymosis, lividity, or hypostasis, singly or combined. This change, which is in almost all cases apparent to the eye, occurs within a few hours after death, and is characterized by the livid and ashen gray tinge, covering the most dependant parts of the body. This is due to the still fluid blood settling in the most dependant tissues, or a virtual stagnation. This phenomenon is also called suggilation. This settling of the blood gives rise to patches which may be separated from each other, but which later run into one. These discolorations are sometimes mistaken for bruises, which can easily be settled by the division of the tissues. Hypostatic congestion is nothing more than cadaveric lividity, when this term is applied to the lungs or other internal organs. This settling or gravitation of the blood takes place during the cooling of the body, and continues sometimes for about twelve hours, during which time, if the position of the body be changed and the blood is still fluid, they may be made to disappear and re-appear. They will then appear in whatever part of the body is the most dependant. This post-mortem staining is taken as a positive and conclusive sign of death, and occurs in death from whatever cause, without exception. It is claimed that when cooling of the body stops, as a result of death, that then the cadaveric process ceases; it probably ceases to form hypostatic, ecchymotic, and livid spots, but the discolored parts of the body become of a deeper hue; this is ascribed to the blood pigment. No doubt the coloring matter of the blood exudes from the vessels into the surrounding tissues. This pigmentary discoloration can not be made to disappear, as the discolorations due to cadaveric hypostases can, they are, therefore, a reliable sign of the fact that death has taken place at least twelve hours before. The bodies upon which I did not notice these post-mortem changes were the bodies of those burnt or too far advanced in decomposition. They are present even in cases of death from hemorrhage, but as a rule not well marked; still in a case of post-mortem hemorrhage seen by me within five minutes after death, I

saw the most marked cadaveric congestion in all my experience. These ecchymotic, livid and hypostatic spots occur usually when death is so certain that we need not examine for them. These cadaveric stainings are not the result of decomposition, they occur long before that process, especially in the stage of muscular flaccidity and contractility, while the body is still warm, and in the process of cooling; as soon as the body has cooled sufficiently, this process ceases. These spots may be of variable sizes, owing to the amount of blood in the vessels, also to the size of the vessels; if at the time of death circulation is very active, then you may expect to find post-mortem staining of a very decided character. Internal hypostasis takes place at the same time as the staining appears on the surface of, or rather the dependant parts of the body. It is held that in dead bodies, not only may ecchymoses become more extensive owing to hypostatic congestion, but capillaries may even burst, and thus produce hemorrhages which differ in nothing from those petechial hemorrhages which occur during life. This is the deduction of the late Professor von Hofmann, of Vienna; he suspended bodies, which were dead twenty-four to forty-eight hours; in these it was possible to produce extreme degrees of hypostatic congestion, but no ecchymosis; but if bodies were suspended a short time after death, taking the bodies of newly born infants for this purpose, small punctiform or streaky hemorrhages were produced in the conjunctiva of the eyeball in from a few to twenty-four hours after suspension, which could not be distinguished from ordinary ecchymoses which had been produced during life. I recently suspended the bodies of three newly born infants, within thirty minutes after death, and noted particularly that they had no hemorrhages on the conjunctiva of the eyeball before suspension, but after being suspended foreighteen hours, I noted the same conditions as were noted by von Hofmann. It is also possible to watch the gradual enlargement of these hemorrhages; in some instances small petechiæ were produced, even in the cortex of the hemispheres of the brain, over the convexity, which looked like those produced by commotion or capillary embolism. Von Hofmann further says that before suspension there was not the slightest evidence of conjunctival hemorrhage in his cases.

This theory of suspension as a cause of hemorrhage into the conjunctivæ is applicable to cases of persons found dead and hanging out of the bed. In such cases, where the upper part of the body was found hanging over the side of the bed, Von Hofmann has detected numerous petechiæ in the skin over the chest and abdomen, the shoulders, arms, neck and face of bodies of people who have been found dead, lying in bed with the upper part of the body hanging out over the edge of the bed; this I have noted in four cases recently. He says, further, that it is not necessary that the bodies should be found in a dependant position; even those who are stretched out horizontally on their backs show sometimes, especially when their blood remains liquid for a time, a number of petechiæ on the back and the sides of the chest and abdomen. The fact that these are more often found in old people justifies the supposition that the greater vulnerability of the walls of the capillaries in old people predisposes their bodies to ecchymoses of this kind. Occasionally these ecchymoses are found in the bodies of persons who died of prussic acid poisoning and in children who have been suffering from rickets or acute and chronic gastro-enteritis. It is quite possible that the origin of these post-mortem petechiæ is to be sought in minute capillary hemorrhages which occur in the agonal stage and become visible only after death, owing to hypostatic oozing of blood from minute rents in the capillary walls. If this be true, then the differential diagnosis between post-mortem and ante-mortem ecchymosis will be difficult as long as these hemorrhages are so very small. He writes further that in intra-vitam hemorrhage the blood ought to be coagulated, but that we now know that the blood retains its coagulability for some hours after death, and if, as is often the case, a post-mortem hemorrhage takes place between muscle fibres, it may be impossible to remove it thence with water. But when one finds on cutting into an ecchymosis that the blood clot or the blood flows out by itself, or on gentle pressure, then it is clear beyond doubt that the ecchymosis has occurred after death. During life ecchymoses are much more frequently observed in children than in adults. The same seems to hold good also as regards post-mortem ecchymoses in internal organs; whereas cutaneous ecchymoses are more frequent in adults than in children.

It can not be doubted that occasionally ecchymoses are formed

in the lungs, the heart and the thymus, according to the same author, in consequence of the pressure of the blood, which, following the law of gravitation after death, is collected in the dependant parts of the body; but it must also be remembered that in many instances minute lesions may have occurred in the walls of capillaries during the agonal stage, which after death become larger, and therefore visible to the naked eye. Nothing could be more injudicious than to diagnosticate death from suffocation because a few ecchymoses have occurred under the pleura or the pericardium of children who have been found dead in bed. Such ecchymoses are of diagnostic value only when they appear in parts where there is not, and never has been, any hypostatic congestion, when there are signs of hyperemia and congestion which have existed during life, and when infectious and septic diseases, diseases of the blood and indications of poisoning can be absolutely excluded. The important deductions of Von Hofmann widen the field of research, in cases of suffocation, where heretofore ecchymoses found under the pleura and pericardium have been assigned as positive diagnostic post-mortem evidences of death by suffocation. The blood in a dead body coagulates in the same manner as does the blood that flows from a wound in the living; consequently the position of a dead body may be denoted by the clot found in the interior thereof, the lower portion of the clot being of a deeper color than the surface of the same. The blood is obedient to the laws of gravitation, and congests the superficial capillaries; as decomposition comes on the gases evolved therefrom give the ecchymotic spots a deeper color. These ecchymotic spots are usually situated in the congested capillaries, in dependant parts of the body that are not subjected to pressure; they are irregular in shape, dark colored, and never elevated above the skin; they appear in patches, gradually running into each other; upon incision no effused or coagulated blood escapes, excepting what may escape from the points of the divided veins; when putrefaction sets in these spots are not characteristic any longer and may hardly be distinguished from the bruise on a living body.

8. **CADAVERIC RIGIDITY, CADAVAERIC SPASM, RIGOR MORTIS.**—Muscular rigidity was considered for centuries as a certain sign of death. It is a condition which endures longer in summer than in winter; thus of 3602 dead bodies seen by me in a condi-

tion of rigor mortis, 2289 I saw in the heat of summer, and in these rigor mortis lasted from 36 to 48 hours. Rigor mortis is the concluding indication of the positiveness of death. It precedes in almost every case the phenomena of putrefaction, and comes on generally in from five minutes to four hours after death, though sometimes its appearance is postponed until much later. It does not invade the muscles of the whole body all at one time, it does so gradually. It is a characteristic stiffness occurring in the muscular system after death. In many cases it has passed away before the body has been seen; its time of appearance and its duration differ in every case, it becomes general, that is I have noted so in my experience, it is lasting and generally well marked. There is nothing that can be mistaken for it; the bodies of the dead are usually kept long enough for this condition to appear; this and putrefaction are almost absolutely certain signs of death, although one must wait too long for them to appear. Of course certain forms of rigidity that may occur during life may be mistaken for rigor mortis, as for instance tetanus, rigidity from apoplexy, catalepsy, syncope, asphyxia and hysteria. But in rigor mortis there is no warmth of the body as there is in these diseases; furthermore in rigor mortis there is a gradual stiffening of the muscles, whereas in these diseases the spasm of the muscles is a general one. In the rigor mortis of death, the stiffness usually commences in the muscles of the neck and lower jaw and then gradually affects the other parts of the body. Another distinction between stiffness of disease and that of rigor mortis is that if a joint be forcibly bent in a condition of rigor mortis, it will never return to its former condition. There is a spasm of the muscles, which is usually observed in certain cases of sudden death, as after the more violent forms of death, in battles or from apoplexy, or injuries of the cerebro-spinal axis; this is called cadaveric spasm and may occur after death from any cause, it is simply preliminary to rigor mortis proper. It may at times be indistinguishable from rigor mortis, or it may escape the notice of the observer. It is simply a failure of the limbs to relax at the time of death, no interval being observable between the continuance or departure of the vital tension of the muscles and their fixture by rigidity.

Commencing at the latest instant of life, the rigidity contin-

ues uninterruptedly till the muscular tissues have begun to alter under the effects of putrefaction. Rigor mortis occurs sometimes a little before the disappearance of muscular softening, but usually it denotes the end of muscular flaccidity. The body is now as rigid as a bar of iron and all efforts avail nothing to bring it into a state of contraction. Whatever position the limbs were in, when rigor mortis begins, that position they retain, and it takes considerable force to move the limbs. This condition exists until putrefaction begins, but the length of time of its duration is variable; it affects all the muscles externally and internally; when rigor mortis is once on the wane, and disappears entirely, it never returns. When it does disappear it is followed by the first processes of putrefaction, although decomposition may occur in some organs while the body is yet rigid. In cases where severe and prolonged convulsive movements from whatever cause precede death, rigidity sets in early. Not only does it occur early, but it disappears very rapidly, in those who die from exhausting affections, of whatever nature. It may last for days, while it usually exists about thirty hours. The duration of rigor mortis is modified by temperature, by the physical condition of the person before death and by the mode of death. In this connection I may state that the age of the subject has an influence on its duration. Of the 7900 dead bodies of human beings observed by me, 3602 were in the stage of cadaveric rigidity, at the time of inspection. In those which were inspected, in cool or cold weather the cadaveric stiffness of the limbs was most marked and continued longer than in those bodies exposed to heat of any high degree, as was also the case in the bodies of subjects who had died suddenly or quite so, while in apparent good health. In cases of death from suicide, homicide, or accident, the duration of this condition of cadaveric rigidity was also of greater length than in the instances of persons dying of the every-day affections. Of course these observations refer particularly to the bodies of those of tender age, whether infantile or senile. There is no doubt of the fact that the volume of the muscle which becomes rigid, and they certainly do all become so, is diminished in its calibre. They are no longer in a condition of irritability, or elasticity; their mobile condition, under the influence of the experimenter's fingers, is displaced by a condition akin to an immobile body of

whatever nature. They become firm in their consistency; their flaccid condition is a phenomenon of the past. How often is it seen that a body is found dead in bed, in a position very like the position taken on retiring to sleep; the supposed live person is not disturbed. On further investigation, it is found that the person is really dead, and the life-like position is due to the fact that the muscles retain the exact position they assumed immediately before death, or occupied at the time rigidity came on. Cadaveric rigidity is a condition that is common to all the muscles, voluntary or involuntary. It is a phenomenon which is dependent on the state of the muscle itself, since it is found in these structures no matter what the condition of the surrounding tissues is. While the influence of a cool temperature delays the appearance of rigor mortis it also retards its disappearance. In 17 cases I have seen rigor mortis complete within two hours; in 140 cases it was complete in three and a half hours; in 162 cases it was complete in five hours; in 206 cases it was complete in five and a half hours; in 292 cases it was complete in six hours; in 1798 cases it was complete in seven and a half hours, and in the balance of the cases it showed itself as complete in from eight to fifteen hours, that is in 986 cases.

As before stated, rigor mortis may not appear for many hours. This is regulated by the suddenness of the death, or by the previously weakened condition of the body. A firmly contracted heart may be mistaken for a hypertrophy of that organ; whereas it is but an indication of the well-known fact that voluntary muscles stiffen later than the involuntary; the heart being an involuntary muscle, becomes hard and contracted as a result of the processes of post-mortem rigidity almost as soon as death occurs. But there are other muscles which take on this early rigidity, for instance the muscles which compose the eyelid, which in some cases are rigid before death occurs. Changes in the muscles of the face are very frequent before death, and when these changes do occur, it is usually the case that post-mortem rigidity fixes this change, as it were, and renders identification of the face of the body almost impossible. Warmth does not, in all cases, retard rigidity. The body is certainly not cold in all its parts before death, still rigidity will and does set in, even before the heart has ceased to beat. I have seen rigidity set in almost within five minutes of death, before and after. We

therefore know that flaccidity of the muscles is not a bar to the supervention of rigor mortis, in fact there may be no stage of muscular flaccidity; the stiffness of the muscles proceeds after death in regular order all over the body; the muscles of one part of the body may be in rigid contraction, whereas the muscles of other parts may still be supple and pliable. Rigidity passes off in the same order as it began, and when once gone, never returns. The body now becomes as pliable as it was prior to this change, and is then attacked by the processes of decomposition. The order of the occurrence of post-mortem rigidity has been observed differently by many observers, so that a regular order can not be enunciated. In the majority of my cases the change took place in the muscles of the face first. This is about the only place on which the majority of the authors will agree, and even the laity know well the characteristic changes in the eyelids and jaw. In my series of cases, rigidity, soon after attacking the face, invaded the muscles of the lower extremities, the muscles of the trunk and upper extremities, in my observations stiffening last. The period of post-mortem rigidity, as regards its duration is variable, certainly enduring longer in winter than in summer. In my series of cases I have seen it last in one case two weeks, in another for three weeks. It was a common occurrence to find rigidity in the cases of still-born children and even in children who had breathed a few times, to occur very rapidly. Of the number of drowned included in my observations, 95 per cent. showed marked and lasting rigor mortis; this is due to the fact that the water is always a few degrees colder than the air, and also that it is a better conductor of heat, in this manner the process of decomposition is retarded, but this rule does not hold good in all cases, for it has been shown that decomposition may, and does occur even in a warm bath, in hot countries, and when the temperature of the dead body is above the normal. The appearance of rigor mortis and its duration are due in great part to the development of the muscle and its nutrition, the nutrition being altered by the amount of suffering or fatigue the person was subjected to before death. In all the cases where paralysis had existed before death, the paralyzed limbs were also attacked with the rigor mortis, which is such a constant sign of death that some authors claim that it is never absent in any case. In some diseases where the temperature is very high, and death re-

sults therefrom during the height of the fever, rigor mortis makes its appearance very early and lasts a long time. I have noticed this in two cases of septicemia recently. But it has always been evident that it is not so much the disease which influences the early occurrence and duration of rigor mortis, as it is the powerful and healthy condition of the muscles. The explanation thus far given by authors for the occurrence of rigor mortis, have not been wholly accepted by the students of medico-legal-science, still the plausible theory is the one which claims coagulation of a proteid in the muscle plasma, forming a substance called myosin, as the direct cause of this peculiar condition of the muscles. Stimulation of the muscular system, by whatever means, may be accomplished before the occurrence of rigor mortis, but once this condition sets in, there is then no such thing as contracting a muscle by electric or other stimuli. In every case that I have met with, numbering 3602, this condition of rigor mortis was a sure and positive forerunner of the interesting processes of decomposition. To come back for a moment to the cause or causes of *post-mortem* rigidity, allow me to say that physiologists make the statement that the acids of the body which can no longer be removed from the body after death has occurred, coagulate the myosin, which is in the muscles; in this change the muscles become opaque instead of transparent; putrefaction develops ammonia, this ammonia, or product of decomposition, dissolves the myosin of the muscles, and thus the muscles return to a softened condition. I have noted in many cases that if the muscles were subjected to a great degree of irritability during life just preceding or at the time of death, that then the stiffness of the muscles comes on late and lasts a long period of time. In these cases certainly putrefaction shows itself late, consequently it becomes a very slow process. Rigor mortis is an incontrovertible sign of death, but occurs so late as to become like putrefaction, we might say, but a stamp to the preceding signs of death. Putrefaction is the trade-mark of real death, and, with rigor mortis, is a constant occurrence. It is claimed that rigor mortis does not occur in still-born children. I have seen it very recently in the bodies of still-born children. Rigidity may exist in the uterus, and pass away before the fetus is expelled. To fix the time when death occurred by calculation, with rigor

mortis as a factor, is impossible; all that can be adduced is that death had recently taken place. To sum up, in individuals exhausted by disease, rigor mortis appears early and does not last very long, but in those dying while in apparent good health it shows late and is of longer duration. Rigor mortis is undoubtedly the first change ushering in putrefaction, the chemic change going on in the muscles during or just preceding rigor mortis being the first step in this process. Rigor mortis is an almost constant sign of death.

9. PUTREFACTION.—Putrefaction is a process full of ingenious changes and phenomena. Chemic phenomena taking place just before, during the moment of, and after death, result in changes in organs of the dead body, whether those organs have been in a condition of pathologic alteration or not. It distributes its products through channels, numberless to conceive, to all parts of the body, setting up in one a condition akin to an ante-mortem pathologic feature; in another it removes, or adds to the appearance of disease.

Putrefaction affects the body in numberless ways, but chiefly through the intestinal or alimentary canal. Swarms of organisms penetrate the tissues through this tract, multiply in them, liquefy them, destroy them, thus producing such alterations, such varied changes, that at times it is very difficult to differentiate the ante-mortem from the post-mortem condition. These phenomena vary, according to the condition of the alimentary tract, whether it contained food or not. Soon after death there is a reddish froth discerned escaping from the mouth and nose. This is preceded or accompanied by changes in the eyes, and other superficial parts of the body, as previously treated of in other parts of this essay. Then faint greenish or bluish-green spots appear on the abdomen or over the groin—they may be brown or black—thus the color of these phenomena of decomposition vary. In some cases I noted the first discoloration to be on the side or sides of the nose. The odor of death, so-called, is not a constant sign of putrefaction; it may occur before death, in other cases it is absent. The discolorations noted usually occur in from one to five days, but more often than otherwise on the third day. They are accompanied by greenish patches on other parts of the body, and in the case of those on the abdomen are caused by the evolution of gases produced by the decom-

position of the internal organs. The liquids forced through the mouth and nostrils are also a result of this rapid decomposition of the internal organs, which press on the walls of the stomach and intestines, becoming themselves displaced, and displacing their neighboring organs in like manner. In several days the entire surface of the body becomes discolored, the products of decomposition—namely, the gases and liquefied products, forcing and distending the abdominal surfaces in all directions and in this manner separating the epidermis, so that it can be almost rubbed off the surface. The features become swollen as do all other parts of the body, the hair falls out, the finger and toe nails separate from their attachments, and following this there is a disintegration of all the tissues of the body. The presence of air, the existence of moisture in that air, and the high temperature of the surrounding media hasten the successive changes incident to decomposition. Age, disease and the presence of fat in the body also hasten the process. Disease, bad habits, death from some poisonous gases also favor its rapid onset, while other poisons, drowning and quick burial retard its advent. Changes may be noted in the body showing it has begun in a few hours after death; to follow the changes in the different organs is an impossible procedure, suffice it to say that the very first sign of putrefaction is a sufficient and certain test of death; while all other phenomena may be counterfeited, that of decomposition can not. It is a certain but a variable process, as is evidenced by the fact that the rays of the sun may effect more and rapid changes than two weeks' burial in the earth. The brain and eye decompose rapidly, because they contain a large amount of moisture; the hair, bones and nails not so, because they contain little or no moisture. The muscles become pulpy, and form an almost fluid mass of putrefactive tissue. In 268 cases of putrefied bodies observed by me I found that the trachea becomes affected first, the uterus in the majority of instances decomposing last. Putrefaction as it affects the tissues of the body is a spontaneous change; this change is a common one and attacks the tissues successively, resolving them into new and similar products. As an almost absolute rule it begins as rigor mortis ceases, although they may occur together. In order for putrefaction to be taken as a sign of death it must be advanced and at the same time

must be general in its appearance. Gangrene of the lungs, gangrene from local injuries and and gangrene of the skin around ulcers must not be confounded with the decomposition following rigor mortis. The gases developed from these forms of decomposition differ in their constituent parts from the gases formed as a result of death of the body as a whole. Coincident with the formation of putrefactive gases, there is a softening and discoloration of all the organs of the body, although the process of decomposition may attack different organs in an entirely altered degree. The structure of the organ, the quantity of blood contained in the organ, and the ease with which it can be reached by air, all have an influence, while discoloration of an organ after death may, and does, occur in parts, softening of that organ attacks it in entirety. Putrefaction changes the entire mass of animal or organic matter, of which the body is composed, into a mass of inorganic matter. Whilst this change, or transition, is going on gases are necessarily given off; these produce the changes in the color of the surface of the body and also of the internal organs. By the action of these gases on the fluid blood, which has by this time been forced to the surface, whatever may be the mode of the destruction of the body in these processes of putrefaction, it is a certainty that fermentation of the tissues is a prominent factor, producing gases, which in some manner return the body to the mineral kingdom, from which, if we are to set our faith in revelation, we exist, through the hands of an all-wise Creator, who formed man from a product of the mineral kingdom, clay. Putrefaction is the surest, perhaps the only infallible sign of death, absolute and undeniable. The signs are innumerable; they may vary—some of them are found in the living body, some have failed of substantiation, but putrefaction never failed and never will. It is conclusive, it is reliable. To avoid the necessity of waiting for this process to take place, it would prevent all possibility if the radial or temporal arteries were opened with the ever-present scalpel, and left open for an hour. Decomposition does not manifest itself early enough to be made a necessary legal test, in case the authorities should select it as the one to be made, to secure the permit of burial. For certainly, if it were made the legal test, we would be obliged to wait until the tissues of the body began to undergo dissolution and there appeared a discharge from the mouth, nose and eyes.

Leaving out of consideration the cutting of the radial, or temporal artery, there does not seem to be any determinative principle of the question of real or apparent death, excepting the fact of putrefaction. The old-time vulgar method of approaching a lighted candle or a well-polished mirror to the nose of the person supposed to be dead is still greatly relied on as a good means of judging after the pulse has ceased to be perceptible and the heaving motion of the chest has stopped. The complete immobility of the body, the absence of respiration, the disappearance of cardiac pulsation, the fixedness and sinking of the eyes, the dilatation of the pupils, are not and never will be in themselves conclusive evidence of death; but signs of decomposition following cadaveric rigidity can only be considered as conclusive proof of the cessation of life. The point of my paper will be reached, if I have proved that the results of the several tests mentioned throughout the paper are satisfactory as following and corroborating each other; but in nowise would I claim that they are adequate. Science has certainly supplied us with signs of death, sufficient in number, when taken together, to brand him who does not know enough about them to guard against the possibility of burial alive as ignorant and culpable.

My conclusions, then, are *that as a certain sign of death, we have putrefaction, which in itself may be taken as a test; but the most certain test to be applied, without possibility of error, I hold to be the prompt and immediate opening of the radial or temporal artery.**

THE ANNUAL REPORT OF 1899 TO THE PRESIDENT OF THE
TULANE UNIVERSITY OF LOUISIANA, AT THE ANNUAL
COMMENCEMENT OF THE MEDICAL DEPARTMENT, MAY
3, 1899.

BY PROFESSOR STANFORD E. CHAILLÉ, M. D., DEAN, NEW ORLEANS.

MR. PRESIDENT—The sixty-fifth year of the existence of our college ends in 1899, and our graduates now number 3291 in medicine and 307 in pharmacy.

At our last commencement my report closed as follows: "This college has survived and still prospers in spite of numerous financial panics, of eleven yellow fever and also eleven

*The complete article of DR. HEROLD may be had in book form for 25 cents. Address the JOURNAL.

cholera epidemics, and of two great wars. A third war, now in progress, even if it should be associated with some other public misfortune, will find at its close the Medical Department of Tulane University—the oldest and the foremost medical college in the great southwest—still pursuing its onward career, still striving to relieve all who suffer, whether friends or foes, from the woes of disease and of premature death.”

Unfortunately, the war was associated with two other public misfortunes that seriously affected our college. Cotton, the great staple on which the financial prosperity of the southwest chiefly depends, yielded the least price ever recorded, and the yellow fever, with its consequent quarantines of 1897, reappeared in 1898. For this reason, the medical faculty, influenced by its grave responsibility for the physical as well as for the educational welfare of its students, decided to postpone, for three weeks, both the opening and the close of the present session. This decision finds justification in the facts that, the present class exceeds in number any class during the past six years; and contains representatives of fourteen different States, coming from as far as distant Pennsylvania and Oregon.

The increased attendance, in spite of three public misfortunes, from 344 at the preceding to 388 students at the present session, was chiefly due to two causes. In part to the late date (September 17) when yellow fever was first officially reported and to the fortunate advent of frost at the unusually early dates October 22 and 27; and also in part to the annually increasing educational advantages and reputation of our college.

The greatest of our advantages is the use for educational purposes of the great Charity Hospital, with its 30,000 annual sick. The unsurpassed facilities for instruction, heretofore enjoyed therein, have been notably increased by the completion, in 1899, of an annex to accommodate 200 sick children—the Richard Milliken Memorial Hospital—an enduring monument to an honored husband and to the charity and generosity of a devoted wife. Civilization has no duty more imperative than care for its children, and displays no tenderness more touching than provision for those who are sick and destitute. Such may have been the sole motives influencing the loving and tender heart of Mrs. Milliken, but every good deed is like a fragrant flower that disseminates its perfume beyond its own garden, and her good

deed spreads its beneficence beyond the suffering little children to the Medical Department of Tulane University, and contributes much to the cause of medical education, on which depends the best care of the sick everywhere as well as in the Milliken Memorial.

Another much needed annex to the Charity Hospital, still farther increasing its educational facilities, will be the erection soon of a building for the isolation and better care of those afflicted with communicable diseases, the Richards Memorial Hospital, due to the philanthropic bequest of Mr. Wm. T. Richards.

The increase of forty-four students in one year, in spite of three public misfortunes, is very gratifying; and yet New Orleans, comparing its population and advantages with those of other cities, is entitled to many more medical students, and our college, in view of its great educational resources, the capacity of its buildings, and the scale of its annual expenses, ought never to have fewer than 400 students. The average number during the three annual sessions ending in 1893 was 414, but during the last six sessions has been only 368, an average annual loss of forty-six students. This loss represents the contribution of the medical department to the cause of medical education, for the benefit, in part, of the medical profession, but in far greater part for the public good.

The change of conditions in 1893 that caused this loss deserves consideration. On the one hand, a new, larger and much better building was erected by the bounty of our colleague, Prof. T. G. Richardson, M. D., and his wife, Ida A. Slocomb, whose life has been a blessing to New Orleans; all of the laboratories that have become indispensable to medical education were for the first time amply provided for; and the number of our teachers was much increased. On the other hand, decisive evidence of a fair preliminary education was for the first time required, the session was lengthened, attendance on three instead of two annual sessions was demanded for graduation, the final examinations were made more exacting, and the expense of a medical education was necessarily increased. Inasmuch as our educational advantages were greatly augmented the loss of students was manifestly due to the increase of requirements for graduation.

And yet, this college, in union with other reputable Southern

medical colleges, has decided that students, who may hereafter enter a medical college for the first time, shall be required to attend four instead of three annual sessions. Experience since 1893 justifies the fear that this additional requirement will cause a loss in the number of our students for at least a few years, and probably greatest in the session of 1901-02, when most of our present students, of whom only three sessions are required, will have been graduated. It is due to the administrators, alumni and friends of our college that some of the reasons for demanding a fourth year of attendance shall be stated.

During the sixty-five years' existence of our college, the progress of medical science has been greater than during all the milleniums of man's existence. So vast has recorded knowledge become, that no one can master more than a fraction of it; hence the great increase of specialists and the imperative need for the great increase of teachers in every medical college, from a half dozen sixty-five years ago to from twenty to one hundred at present. Numerous laboratories, instruments of precision and new appliances have become indispensable to the medical education of competent practitioners of medicine. For such reasons, a much longer period of study is now required to enable a student to master the fundamental facts and principles that underlie medical science.

Owing chiefly to public inappreciation of the great dependence of the common welfare on medical education, American medical colleges have been, for the most part, the offspring of private enterprise, their number has been excessive, and the competition to gain students has been so desperate that the requirements for graduation have been scandalously inadequate, so that these colleges have been, with too much justice, ridiculed as "joint stock companies for the manufacture of cheap doctors and plenty of them." Every other civilized country has long required of medical students a high standard of preliminary education, and, while many foreign countries require more than four years to complete a medical education, not one demands less. What good reason is there, that, now when the quantity of doctors exceeds the demand, the quality should not be improved sufficiently to provide the United States with as well educated physicians as other civilized countries possess?

Louisiana and most other States have, in recent years, enacted

laws that establish Medical Examining Boards. These laws indicate the increasing appreciation by the public of its need for better trained physicians, and of the failure of the medical colleges, in their struggle to attract students, to impose adequate requirements for graduation. These boards have the power to stimulate every reputable college to graduate none but well educated and competent practitioners of medicine.

A final reason for requiring attendance during a fourth year is that more than 80 of some 120 regular medical colleges in the United States have required a fourth year ever since 1894, and that their graduates of 1899 will have fulfilled this requirement.

In the wide domain of education there has been progress in no department as remarkable as in medical education during the past eight years. Prior to 1892 medical students were usually graduated after a collegiate career of about seventeen months, and this time included only two college sessions of about five months each. Hereafter, three and a half years will be the minimum time required, and there has been an equally notable increase in laboratory courses and other additions to the curriculum of studies. These additions have burthened medical teachers with far greater labors and college authorities with the responsibility of providing much more capital to establish such an educational plant as is now indispensable to medical education. Not long ago \$100,000 was deemed a large sum with which to found a medical college, but now there are several in the United States whose assets approximate a million dollars. Years ago an expert estimated that it would require three million dollars to found an ideal medical college, but the realization of this ideal was postponed to the time when Utopia might be transferred from Dreamland to the United States. None the less, in 1898, an event occurred pregnant with suggestions as to the future of medical colleges and of medical education. Two noted colleges—the Medical Department of the University of New York and the Bellevue Hospital Medical College, with property valued at nearly half a million—were combined to form the University-Bellevue Medical College.

The Medical Department of Cornell University, a university with over eight millions of property, and which the philanthropist, Oliver H. Payne (a name to be ever honored in medical annals) has endowed with \$1,500,000, came into existence at the same

time. It deserves note that the head of this college of unequaled resources is a thoroughbred son of the Old South and was a captain of the Confederacy; that his father was that famous and heroic Bishop of Louisiana, who, in 1864, while a Lieutenant General in the Confederate army, was killed in battle, and that this dean of the Medical Department of Cornell University, Dr. Wm. M. Polk, began his medical career in 1867 as a first course medical student in our college.

While much has been done to advance medical education much remains to be done by most colleges to perfect it. Should public opinion sustain Medical Examining Boards in requiring that a medical diploma shall be a guarantee of unquestionable professional competency, then numerous colleges now without adequate resources and hospital advantages, must either disappear, or will be forced to limit their instruction to the first two sessions, leaving the last two to colleges that possess the hospital advantages without which it is impossible to train competent practitioners of medicine. The public will eventually recognize the truth that he who learns medicine and surgery by means only of books, engravings and mannikins should prescribe solely for and operate solely on books, engravings and mannikins.

The Spanish-American war of 1898, although ended within four months, conspicuously demonstrated the vast resources, courage and patriotism of the people. In 1898, as in 1861, the call to arms found a prompt echo in the brave hearts of the patriotic sons of our Medical Department and grim-visaged war again tested the valor and the worth characteristic of our students and graduates.

In 1861 our students numbered 404. The war began and left us in 1862 with only ninety-four; a sufficient indication of the patriotism of our students. Six years after the war information was procured of only 427 of our graduates; of these, 240 had served in the Confederate Army; thirteen were killed, three died of wounds and five were permanently disabled by wounds received in battle, and sixteen "died in service," some by disease and some in prison. To this fraction of the ghastly truth it may be added that in 1875 all of our professors had been and to this day a majority of them were officers in the Confederate Army. This roll of honor is probably unsurpassed by any medical college.

The recent war made comparatively little demand on the patriotic ardor and martial capacity of our country and yet sufficed to justify the belief that no other medical college can surpass if equal our own in the number of graduates who entered military service, and there gained distinction for themselves and for their Alma Mater.

Information has been secured of fifty-four of our graduates (fifty-one of these having been medical officers) and of thirteen of our undergraduates who served during the war. There were probably many more, of whom information is earnestly solicited. From many sources most gratifying evidence has come of the valuable and highly appreciated services rendered by these sons of our college, and many of them gained the enviable distinction of special commendation from the highest official sources. It would be a pleasure to cite these commendations, but, lacking full information as to many, there would be risk of injustice to these by omission.

The names of the fifty-three doctors, our graduates, who volunteered and served are as follows:

Doctors: C. T. Pollard, of Alabama; R. M. Enders, of Arkansas; R. T. Burr, of California; U. S. Bird, C. B. McKinnon, and F. R. Maura, of Florida; J. G. Jarrell, of Georgia; J. F. Archer, H. L. Bauer, E. R. Bragg, H. J. Combel, J. E. Davis, M. W. Hamilton, B. H. Kittrell, C. L. Le Roux, J. R. Tackett, R. L. Turner and S. Winchester, of Mississippi; F. J. Combe, C. G. Cook, F. C. Ford, A. B. Kennedy, H. C. McClenahan, R. E. Nicholson, B. Smith, W. W. Walker and D. D. Wells, of Texas: T. Y. Aby, F. E. Artaud, A. H. Butler and R. F. Jones, of Louisiana (outside of New Orleans), and from this city, R. P. Ames, J. J. Archinard, W. W. Calhoun, F. J. Chalaron, T. S. Dabney, L. De Poorter, J. R. M. Dillon, F. R. Dolson, J. F. Dunkie, L. J. Genella, H. B. Gessner, H. P. Jones, J. A. Jumel, G. B. Lawrason, M. H. McGuire, R. O. Marcour, P. Mazzuri, H. E. Ménage, W. E. Parker, W. M. Perkins, J. A. Tabor, C. H. Tebault, Jr., and L. V. Lowe, a master of pharmacy.

The following facts are requisite to the appreciation of the comparative prominence of our graduates in the war: There are about 125,000 doctors and 120 regular medical colleges in the United States; the Surgeon General, U. S. A., appointed from all the States about 650 so-called "contract-

surgeons," thirty of whom were our graduates; there were only twenty "contract surgeons" at the battles around Santiago, and seven of these were our graduates.

The undergraduates in medicine thus far known to have been in service were the following: A. B. Brown, L. C. Chamberlain, J. M. Fornaris, A. B. Granger, B. F. Hall, J. Heidingsfelder, B. J. Herrington, R. F. Smither, P. L. Thibaut, H. J. Warner, McD. Watkins, H. D. Webb and P. Wilson, M. Ph. The sole fatality, as yet known to me, was the lamentable death by disease of Buford J. Herrington, of Mississippi, a student of decided merit and a man of great worth.

In concluding this subject the faculty cordially endorses the views expressed by the students who were not in military service—because not needed there: "Resolved, That the medical graduates of Tulane University merit distinction for the conspicuous bravery and heroic fortitude displayed by many of them while in the discharge of their professional and humane duties under the most trying circumstances. Whether attending the wounded on the first line of battle or caring for the sick in the pestilential camps of Cuba or in their own country, the names of the Tulane graduates are foremost among those who were ever ready to respond to the call of duty and of humanity."

Graduates of 1899: So much more time than desirable has been expended in reporting the past year's events of greatest interest to our college and to medical education that my last words to you must be very brief. The knowledge you have now secured gives you power to aid others to regain health and to prolong life; power to elevate your profession in public estimation; power to increase the fame of the Medical Department of Tulane University, and by these services to others to earn reputation and success for yourselves. It is possible that you might sooner gain notoriety and money by the selfish, pretentious and deceitful devices of quackery, but be well assured that he who best serves others will best serve himself, and be surest to acquire honorable reputation and permanent success.

Your faculty testifies to its hope and its faith that you will use your knowledge to accomplish these ends, welcomes you gladly to the ranks of the medical profession, and bids you, with the cordial esteem your admirable conduct as students has merited, —farewell.

Mr. President: This day marks the 14th Annual Commencement that we have served together and prompts the public expression of the heartfelt esteem and of the affectionate regard and sympathy entertained for you by the medical faculty, and the Dean of this faculty now respectfully requests you as President of the University to confer degrees upon 96 graduates. The 85 whose names will first be called are entitled to the degree of Doctor of Medicine, and the 11 who will be last named are entitled to the degree of Master of Pharmacy.

Clinical Reports.

AN UNREDUCED DISLOCATION OF FIFTH AND SIXTH DORSAL VERTEBRÆ.

BY P. L. BELLINGER, M. D., WATERPROOF, LA.

James Carter (col.), age 18, fell with a sack of cotton seed on his back in December, 1897, sustaining as he thought only slight bruising. After five months of apparent good health, he applied for treatment to a physician for pain in his back, and the physician without an examination pronounced the case rheumatism. After a long treatment patient grew gradually worse, and in three months after pain began and eight months after the injury he applied for treatment at the Natchez Hospital, where a plaster splint was applied from under the arm to near the hips, remaining on for nearly a month; a removal of splint, and a rest of about three days, when splint No. 2 was applied, which remained on about two months; removed again for one week and splint No. 3 applied, after which patient left hospital and returned to his home, but finding it a little light it was removed by patient, this being about one year after receiving the injury. A few days after this he noticed his legs began to give him pain, and cramps often annoyed him, which gradually grew worse, and after one month he was totally paralyzed in both legs with complete loss of sensation, but retaining control over bladder and rectum. A month after this I saw patient for the first time.

The following is the condition in which I saw patient: Temperature normal, pulse good—75, appetite splendid, well nourished, slept well and felt good in general, bowels constipated—not having moved for one week, tongue slightly coated and breath bad, heart and lungs normal. Examination of patient disclosed a large swelling or tumor in the median line at about the fifth or sixth dorsal vertebra, neither inflamed or tender to touch. After careful examination, it proved to be a dislocation of long standing of the fifth dorsal vertebra. Further examination showed total inability on the part of the patient to move either leg, but sensation was perfect, it having just returned. The patellar reflex was somewhat lacking, but slightly present.

The case struck me as being one of a rare nature, so I take the liberty of giving it to the public through your columns.

The following are the points of most interest: Why did it not give rise to more trouble at first? Why did it wait five months and then only manifest itself by pain in the side? Why was paralysis delayed for twelve months? Why was there a return of sensation?

I placed patient on potassium iodide gr. x, with a daily increase of one grain up to tolerance. Gave a laxative and ordered the patient to use massage, and open-air exercise as much as possible.

No results as yet; only a few days of treatment.

A.—INVOLVEMENT OF THE HEART AND BRAIN IN A CASE WHICH AT FIRST APPEARED TO BE A MILD ATTACK OF ACUTE ARTICULAR RHEUMATISM. RECOVERY.

BY E. M. DUPAQUIER, M. D. (PARIS), NEW ORLEANS.

I am prompted to report these cases by the belief, more and more profound as I advance in professional work and thought, that the field of usefulness in practice is all contained in close observation and careful record of the phenomena observed. It matters not whether the facts we meet as we go along are already known, it serves our purpose well in ascertaining them for our-

* Read before the Orleans Parish Medical Society, meeting April 22, 1899.

selves and bringing them again and again before a meeting like this of young and growing physicians. There is always something to reap out of common cases when well observed, and it fixes in our mind most useful remarks that may have yet made but little impression.

For instance: In presence of a case of subacute articular rheumatism with but one single joint swollen and abarticular pains above and below another joint in the tendons, without any swelling perceptible, it is not an easy thing to differentiate the general infection that acute articular rheumatism is now known to be from other septic or toxemic joint swellings. Again, though cardiac manifestations of the general rheumatic infection is not uncommon, yet it is a fact that it is not very common in a mild infection. Moreover, if the cerebral manifestation is an uncommon disorder, therefore worthy of being mentioned every time it is met with, it is the more interesting to note it when it appears in a mild infection, where as a rule it should be the least expected. For these reasons I shall call your attention to the salient points of a case I recently observed.

L. O. is a man of 45 years, an Italian, of strong constitution, a splendid osseous frame covered with well developed muscular structure, a body trained to hard work from childhood, with a remarkably healthy record, as he states he never was ill, confined to his bed, before. This is said as having a bearing on his recovery upon which I shall make a few remarks later on.

I saw the case for the first time on March 17, and he was then in the fifteenth day of his attack; in other words, the average height of an attack of articular rheumatism. His temperature was only 102 2-5 deg. F., and he had still from the beginning the same swelling of the right knee-joint and abarticular pains below and above the wrist-joint without any swelling, but a red spot the size of a silver dollar over the wrist. I immediately questioned him as to any previous attack of articular disorder, gonorrhoea, chills and fever, alcoholism, the condition of his digestion, of his alimentary hygiene. All proved negative, except the examination of the tongue indicating a catarrhal condition of the stomach. His urine examined on the spot with Purdy's ferrocyanic test proved to be free from albumin. The only positive indication on that morning was his broad, heavily coated, moist tongue, and I prescribed a vomitive, 1.50 grammes of pow-

dered ipecac, to be taken in three doses, 10 minutes apart, with plenty of warm water, to be followed by a brisk purging; half a bottle of Rubinat on the next morning before my visit. Notwithstanding all the attention given to the antiseptics of the mouth, stomach and intestines, using beta-naphthol in 50 centigramme doses, the coating of the tongue, the fever and the articular symptoms persisted. I started the salicylate of sodium on the third visit at the dose of 6 grams, to be taken in three doses at 2 hours interval during the day. It was repeated the following day and then the pains, the swelling of the knee, and the temperature began to decrease, the latter being 100 deg. I continued the salicylic medication and digestive antiseptics and exclusive milk diet, watching the elimination of the salicylate in the urine by the perchloride of iron test, giving the well-known purple coloration. The temperature dropped to the normal, and the swelling was almost entirely gone. Yet, I ordered continued the salicylate at the dose of 4 grams a day for fifteen days. I expected to see the case improving, when the next day he was taken with fever, 102½ deg., and the swelling of the knee increased again. The other joints were still free, but I noticed for the first time a great stiffness of the neck, which I first thought was due to the inflammation of the fibrous tissues about the vertebral articulations. I was told he had spoken out of his head and had been blowing hard during all night. There was still marked dyspnea, perfectly rhythmic, 30 per minute. The pulse was quick, 120, weak and irregular. The examination of the chest on that morning revealed no effusion in the pericardium, no murmur, but the beating was altered in a marked degree, being more dull. The clearness of the sounds was normal. There was pain over the precordia and the veins of the neck pulsated more than usual. Something was wrong without doubt, and I felt deeply interested. Knowing the rapid rate at which pericarditis and endocarditis develop in rheumatic infection, I was right to infer that the beginning might pass unperceived, unrevealed by discernible signs, and I immediately gave my closest application to the heart.

I call your attention to the fact that the cardiac manifestation of the disease was not occurring at the time the condition of the knee was improving, for the latter was now increasing anew. It was not, therefore, a metastatic disorder as formerly spoken of,

but a recrudescence of the rheumatic infection. The fever was only $102\frac{1}{2}$ deg. F. as in the beginning, another point of interest showing that visceral forms may develop without elevation of the original temperature. I did not think for a minute that the complication was due to the salicylate as formerly thought by opponents of Prof. Germain See, when he first praised the use of salicylate in acute rheumatism. Yet, knowing that the salicylate did not prevent and cure the so-called complications, I discontinued its use and followed the cardiac indications. Counter-irritation over the precordia was in order and I gave the preference to the actual cautery, using my Paquelin's thermo-cautery because it is more rapid and more sure than any form of blistering. I made ten applications of the "mushroom burner" over the precordia, about three-eighths of an inch apart, and ordered four drops of fluid extract of digitalis, which represents the drug thoroughly, every hour until my next visit. I saw the patient four hours later and found him worse. The cardiac condition was about the same, the pleura and lungs were yet free, but he was delirious; his eyes were injected, and the stiffness of neck increased. The breathing was rapid but rhythmic, his pulse quick and hardly stronger and more regular. He was covered with an abundant perspiration chiefly about the head, yet the temperature was 103 deg. F., a rather moderate degree. He was kicking his blanket off with his left leg and pulling the sheet over his head with both hands, muttering constantly "*They have plugged my nose*" ("*m'hanno meso un turacciolls*"). In deep concern, I inquired from the nurse if the drops had been administered, and asking for the vial to see if the fluid extract of digitalis, the dark, greenish-black extract, had been dispensed, I noticed on the table that the bottle of fine Marsala wine I had recommended the day before, when convalescence seemed promising, was very nearly empty. I wondered if the patient had not taken it all "to take heart," but I found out that the poor fellow had not even had a whiff from the bottle and that his wife grieving over his case had accidentally yet willfully "inspired" herself.

The cerebral symptoms my patient presented were therefore attributed to another cause, and that was cerebral rheumatism. I call your attention to the moderate degree of temperature (103 deg.) and to the stiffness of the neck which was first

attributed to an involvement of the vertebral articulations. I saw now it was due to congestion of the cerebro-spinal meninges and I now thought the dyspnea was due to centric disturbance of the respiration more so than to the cardiac condition. Rapid revulsion and depletion being in order a tablet of elaterium (one-eighth of a grain) was repeated every hour until large watery stools were passed, and the patient's limbs were covered with large mustard plasters. The medication was effective in less than four hours. I discontinued the tablets of elaterium, kept up the mustard plasters and the digitalis, and ordered him given a tumblerful of pure water every hour. I saw him again late that night, he was awfully weak, stood quiet, looking around with eyes wide open, silently, and still covered with an abundant perspiration. From that time on the former agitation never appeared; but he still muttered a few unintelligible words once in a while, recovering consciousness at times, the temperature still remaining at $102\frac{1}{2}$ to 103 deg. for several days, whilst the constant profuse perspiration persisted. I found this latter symptom peculiar to rheumatic infection a most pleasing indication to me, and as the patient was thirsty, I took advantage of it to maintain that perspiration as a means of eliminating the toxins and the patient took very nearly one gallon of water and one gallon of milk in every twenty-four hours, for almost one week.

On March 29, the cardiac, the cerebral and the articular symptoms had completely subsided without leaving a trace of organic lesions. There remained a little temperature yet, 100 deg., and the perspiration was yet constant. The patient was very weak, but he slept well. I gave one gram of hydrobromate of quinin daily, 1-20 of a grain of strychnin. I started to feed him, giving with each meal 50 centigrams of benzo-naphthol and a glass of Chianti wine, which I am sure, then, no one else could drink in his stead.

On April 5, the patient was considered cured, a little over a month from the beginning of his attack.

Closing, I will call your attention to the strong constitution of this man and remark that if he recovered from such a perilous condition it was due to the noble fight his cells made against the toxins. It is said in general pathology that a strong constitution is not a guarantee of immunity against infections. True

it is; but a strong constitution furnishes strong reactions, which are the best remedy. In this rheumatic affection, against which the salicylate is considered as the remedy, such manifestations as the cardiac and the cerebral make their appearance in spite of it, and it aggravates them instead of abating them. It is the part of wisdom to know this and all we must do is to depend on the strong constitution of the patient and help the reaction of the cells in throwing off the toxins by other means than the exclusive so-called "specific" medication.

B.—THE OCCURRENCE OF NAUSEA IN A CASE OF PNEUMONIC INFECTION. ITS PROGNOSTIC VALUE.

Pneumonia, nowadays, is no more considered as a local disease. It is a general infectious disease, like typhoid fever, eruptive fevers, yellow fever, etc.

The germs, starting their mischievous work in the respiratory avenues, run in the blood to the heart, from there to the other organs, obstructing, particularly by embolus, the capillaries of the brain and causing meningitis. Duflocq and Chaillous have cultivated the blood of pneumonic cases and proved that it was infected.*

It follows that the prognosis in pneumonia depends on the condition of the heart, kidneys and brain, the constitution of patients, their ability to struggle against the morbid germs, this, as a matter of course, depending on the degree of the infection of the heart, kidneys and brain. But there is one symptom which, from the very start, has considerable bearing on the prognosis, and which in several cases has proven to be an ominous sign, preceding, as it were, the grave cardiac, renal and cerebral signs of the following days, and that is, *vomiting*.

Nausea and vomiting are not uncommon in diseases of the respiratory apparatus, and they often mark the incipiency of pneumonia cases running and ending favorably; but when they persist they generally announce that the case will have an eventful if not a fatal course, judging from what I have learned at the bedside of patients.

* *Journal de Médecine Interne*, February 15, 1899.—H. Rendu, *Entretien sur un cas d'infection pneumonique*.

I will relate the salient points of a case which is typical.

Widow J., a lady of about 60 years, of small and delicate frame, born weak and nervous, marrying and bearing seven children, besides being broken down by hard luck which tasked her energies, lived in a condition of constant anemia and ailment.

On February 12, 1899, at night, she was taken with a severe chill, vomiting, an awful pain in the left side; temperature 104 deg.

When I saw her early in the morning of the following day, I heard she had had nausea and vomiting all night, first ejecting food, then mucus, and since she could not eject anything, but she gagged and was nauseated almost constantly. She looked pale, exhausted, pulse 120, tongue coated and moist, temperature 104 deg. She coughed, and the little expectoration raised was not colored. Dyspnea, 40 shallow inspirations per minute.

The lower half of the left side of the chest, particularly in the back, presented marked dullness. No vibrations. Silence. The lung not traveling down. This indicated congestion of the pleura, accounting for the severe pain.

The following day pain had decreased, but the dullness increased, vibrations became exaggerated, bronchial breathing and bronchophonia. No râles. The lower lobe of the left lung was consolidated.

Nausea and vomiting had decreased, but they existed yet. The heart became involved, presenting typical tachycardia and arrhythmia. No murmur. The sounds were clear and distinct. There was not, as I thought at first, some severe infection threatening the endocardium, for Rendu says that in severe infection of the endocardium producing ulcerative endocarditis there is no arrhythmia, no murmur, but the sounds lose their clearness and distinctness. The cardiac symptoms here were probably due to centric and pneumogastric disturbance connected with the persistent nausea and vomiting which I had yet been unable to completely arrest. The kidneys became involved, albumin being passed abundantly. No casts.

In eleven days the poison did its work, first exhibited by nausea and vomiting, which were so pronounced at the incipency, also that the lungs, the heart, kidneys and brain became involved in succession, the brain also, for the end came with evident meningitis.

This is a typical case of pneumonic infection of remarkable severity, so much so that I thought it was attributable to the germs of "La Grippe;" not because the latter was prevalent then, in town, but because clinically it was a severe pneumonic infection of a more violent character than the usual lobar pneumonia.

In this case, without doubt, from the start there was a deep alteration of the blood. Like in eruptive fevers and yellow fever, which are typical infectious fevers, alteration of the blood produced here *nausea and vomiting of centric origin*. So, nausea and vomiting when persistent in pneumonic infection do announce *centric intoxication*, and this foreshadows the eventful cardiac, renal and brain manifestations, which, we know, render the prognosis more or less favorable, according to their degree and the ability of the patient to struggle for existence.

In conclusion, let it be asserted, that when nausea and vomiting are well-marked symptoms, they should keep us standing on the reserve in the prognosis of our pneumonic cases.

MALARIAL HEMATURIA—THREE CASES IN SUCCESSION TREATED SUCCESSFULLY WITH QUININ SULPHATE.

BY T. B. ODOM, M. D., WHITEHALL, LOUISIANA.

There appears to be a continued chain of evidence against quinin in the treatment of malarial hematuria, though some of it is no doubt circumstantial.

The states first and most prominent in advancing this evidence were Mississippi, Alabama and Arkansas. Later Louisiana took up the cause and now occasionally gives us some most remarkable cases of hematuria caused by the use of quinin. One Louisiana physician recently succeeded in reducing a robust patient to a shadow by keeping him in the horizontal position for a period of three weeks, giving fifteen grains of quinin in broken doses.

In this humble contribution it is not our intention to dwell much upon symptoms, for they are unmistakable; neither discuss pathology, nor effects of drugs, but will endeavor to outline the treatment generally; quinin forming the basis, combined with stimulants, sedatives and diuretics.

I have been practising six years in the vicinity of the Amite

river, Lake Maurepas swamps. These swamps never grow dry, and furnish an immense amount of semi-tropic vegetable matter, which is in a constant state of decomposition. The small farms extend in narrow strips of land far into the swamps. Dwellings are built on the highest points of these ridges. Wells which furnish drinking water vary in depth from eight to ten feet, with an occasional lagoon of standing water near the doorways: therefore the community may be termed a malarial garden, or hotbed.

The occupation of the inhabitants is principally swamping (that is working up timber in swamps), which necessitates a direct exposure to malaria eight or ten hours out of every twenty-four. With all of this, I have seen and treated but ten cases of malarial hematuria.

Quinin formed the basis of treatment in each case, and they are still living. I report three cases which represent fairly three types or stages as I treated them.

FIRST CASE—Miss C. T., aged 14, brunette, well developed; was called to her at 8 o'clock A. M. History: went to bed feeling well evening before; at 7 A. M. had a chill or rigor, which condition was passing when I arrived, urine voided in my presence being red with blood, and staining vessel red oak tannin appearance.

Patient's features distorted, pupils dilated, respiration 30, pulse 100, temperature normal, stomach in good condition (not irritated). Gave immediately by stomach:

Sulphate quinin.....	15 grs.
Sulphate morphin.....	$\frac{1}{4}$ gr.
Gum camphor.....	1 gr.
Red pepper (powdered).....	$\frac{1}{2}$ gr.
Brandy.....	2 drachms.

In two hours repeated the same, with the addition of twelve drops spirits turpentin. Next two hours repeated, leaving off spirits turpentin. In the meantime a 12-grain calomel purge had been given, which caused bowels to act freely. Urinated four times in ten hours, with last clearing up; coloring matter indicating sediments from the bladder. Quinin continued in 10-grain doses four hours apart, till two doses had been taken, adding stimulants and opiates as indicated; then quinin continued in 5-grain doses three times a day, spirits turpentin twelve drops

every twelve hours and stimulating diet. Patient on feet in five days.

SECOND CASE—Frank A., aged 35, native of France. Spare build, blond; educated and refined character. Occupation, swamper. Was called to him at 2 P. M. History: Had a chill the day before at 1 P. M., which lasted an hour; voided bloody urine immediately after chill was off; his wife had preserved the whole amount of urine passed in 24 hours, which amounted to about one-half gallon of decomposed blood and urine.

Patient still passing blood in urine when I arrived; was very weak, and tossing in bed from side to side; vomiting a coffee-ground appearance matter, which stained bed clothing greenish color; jaundice; respirations slow and sighing in character; pulse 110; temperature 102 deg. F.

Treatment: Gave 12 drops digitalis by hypodermic, followed in ten minutes by sulphate morphin $\frac{1}{4}$ grain, atropin 1-150 gr. In half an hour gave by enema:

Sulph. quinin	40 grains.
Tinct. opium	20 drops.
Brandy	2 drachms.
Sweet milk	$\frac{1}{2}$ pint.

All retained. Respiration and pulse improved. In half an hour gave by stomach:

Sulph. quinin	15 grains.
Powd. capsicum	$\frac{1}{2}$ grain.
Gum camphor	1 grain.
Brandy	1 drachm.

Repeated last mentioned in two hours with the addition of morphin $\frac{1}{4}$ grain, spirits turpentin 12 drops. Urine began to clear up; quinin reduced to 5 grains every four or six hours, 15 grains of calomel had been given which produced several copious actions from the bowels, of dark-looking matter.

Quinin and digitalis kept up; adding tincture chloride of iron, 15 drops 3 times a day; spirits turpentin 12 drops every twelve hours. Stimulating diet. Patient improved and was out of bed in eight days.

THIRD CASE—Miss C. M., aged 25; used cistern water for drinking purposes; premises comparatively free from malaria. Visited her brother, crossing a swamp in a skiff about two miles in distance. Her visit lasted one week, in meantime drank

well water; on returning she presented the malaria cachexia and was feverish. Next day had a chill, and passed bloody urine; got out of bed and tried to resume household duties, still passing bloody urine; returning to bed very weak.

I was called twenty-four hours after first symptoms of blood; found patient exceedingly weak; her sister standing by fanning her to keep up respiration. Jaundice and dark half circles under eyelids; vomiting black matter, blood in the urine continuing. Respiration 30, and shallow; pulse 100, hardly perceptible at wrist. Temperature normal. Treatment—Lowering head; gave 15 drops tincture digitalis by hypodermic; following soon with morphin, grain $\frac{1}{4}$, and atropin, grain 1-150. In half an hour stomach was settled, then gave by stomach sulphate quinin 30 grains, morphin 1-6 grain, gum camphor 1 grain, capsicum 1 grain, spirits turpentin 12 drops, brandy 2 drachms; inhalation of aqua ammonia occasionally.

In two hours, repeated the above, leaving off fifteen grains of quinin and turpentin.

Patient became quiet and presented symptoms like those produced by a strong galvanic current.

Quinin reduced to eleven grains every four hours, till three doses were taken. Opiates, stimulants, and diuretics added as indicated; also gave a fifteen-grain calomel purge which acted well. Urine cleared up; patient improved; quinin reduced to five grains, three times a day. Put on citrate of iron and wine, beef tea, and other stimulating diets.

At the end of twelve days patient was at wash tub rinsing her clothing.

Dr. Otto Lerch, a prominent physician of New Orleans, assisted me in the treatment of some of these cases.

COMMENT—1. Patients had hematuria of malarial origin, no doubt. 2. Quinin was given subsequent to hemorrhage and that in doses ranging from sixty to eighty grains in twelve hours. 3. Patients are now in good health.

Clinical Lectures and Notes.

A SERIES OF REMARKABLE SURGICAL OPERATIONS OCCURRING IN HOSPITAL PRACTICE, REPORTED FOR THIS JOURNAL FROM THE PHILADELPHIA CLINICS.

A REMARKABLY PERSISTENT VESICO-VAGINAL FISTULA.*—This patient has had nine operations for vesico-vaginal fistula, and one operation for removal of stone in the bladder. The fistula remains open, and she is patient enough to anticipate even with some hope and delight another operation for her cure. She first came for treatment November 24, 1891, and has been here since then on four occasions. Her bladder at one time was full of small stones, which had formed about the cicatrix of the wound. No attempt was made when the stones were removed, to close the fistula, for the patient was suffering from cystitis, and she went out before she was perfectly well.

This time she had an attack of the grip, with probably some cystitis. She is better from her grip. The bladder has been sounded and there is no accumulation of stones. The mucous membrane seems smooth, and no acute cystitis.

In studying the different forms of fistula we find four; the simple vesico-vaginal fistula; one higher up connecting the bladder with the neck of the uterus, a vesico-cervical[†] fistula; one higher still, a vesico-utero-vaginal fistula; the fourth is one connecting the vagina with the urethra, an urethro-vaginal fistula. Some are more readily operated upon than others. The vesico-vaginal is most common. Injuries causing these fistulas usually come after deliveries, and are usually neglected. Injury may come from pressure of the head for a long time, but it may be the result of careless application of the forceps.

This woman has had three children, and her history should be of interest to us as obstetricians. The first labor was not difficult; the second rather easy, but the child was large; the third was instrumental and a long labor. A history of progressive difficulty in labor. I should judge the pelvis was somewhat contracted. She is not a dwarf, but quite short. The head had been pressing for a long time in the canal.

She had the fistula immediately after this labor when she

* From Dr. Anna Fullerton's Gynecological Clinic at the Women's Hospital.

noticed that she could not retain her urine. It is a vesico-utero-vaginal fistula.

The operations were not very successful, because the ties were so high and from loss of tissue it must have been difficult to bring the upper and lower parts together. I judge that an attempt had been made at turning in the cervix to the bladder. I can feel no cervix in the bladder now. She does not menstruate now but says the urine is sometimes tinged with blood. If the operation had been a complete success she would have menstruated into the bladder.

You will notice in our examination that the milky water sent into the bladder juts out at the vault of the vagina where an opening was left. There is also a smaller opening lower down. In examining for the fistula we use the same apparatus that is used for washing out the bladder, a funnel, piece of tubing and glass catheter. We carry water into the bladder colored with milk or potassium permanganate. In order to see the anterior vaginal wall we put the patient into the knee chest position. In carrying water into the bladder care must be taken to introduce no air, as air in the bladder will cause a vesical colic. The water here comes from two openings.

What was done was to pare the posterior lip of the cervix and the lower edge of the opening in the bladder and unite them, but there is still an opening above and below.

In operating on her I will simply try to freshen the edge of the fistula. There are really two fistulæ here. She will have to have the operation done in the knee chest position, because we can see better. I must try and get it denuded all around; because, of course, if I leave any undenuded point I can not expect a union. The sutures ought to be silk woven gut or wire on account of their permanency. It would really seem better to run two fistulæ into one and take away the small band of tissue between.

CASE OF ENTEROCELE AFTER OPERATION FOR PROCIDENTIA.*
—This patient came in almost a year ago. At that time she had almost complete procidentia, and you might think from looking at her now that she still had procidentia. But the fact is she has no uterus.

She had then three or four large ulcers on the vagina, one of them being half the size of my hand. We concluded, since her

* *Ibid.*

tissues were very relaxed, and her stoutness made it impossible that we could do anything to sustain the uterus in its place, and seeing she was past the menopause, to remove the organ by vaginal hysterectomy. Under some such circumstances ventral fixation might have been indicated, but no operator would like to perform that operation with this abdominal wall. We tried at the same time to diminish the size of the vagina by lateral colporrhaphies, hoping that the vagina would not descend; but you see it has. We thought of the LeFort operation, but that would preclude all marital relation by closing up the vagina, and her husband is still living. She is on her feet so much of the time that her heavy abdomen makes a great deal of pressure.

Now we will carry the finger into the vagina and see whether the protrusion is a rectocele or an enterocele at a higher point. It is as I thought, not a rectocele low down, but rather an enterocele at a higher point—a weakness in the vaginal wall at a point above the perineum, about half the length of my finger.

Now the question is, of course, what is to be done for the woman. She can not wear a ring comfortably. She wore for a time a Gehrung. In order to wear it satisfactorily the patient must have a pretty fair perineum. If there is any defect in the posterior wall you will have trouble in holding this in place. It answers fairly well for cystocele, but not for a rectocele or enterocele.

I should by all means think the most satisfactory thing to be done for this case was the LeFort operation—simply closing up the vagina. She has no support for the vagina—no muscle tissue whatever—it is all fat and connective tissue, and I can not see that any simple colporrhaphy would be of any help. After this operation, uniting a posterior strip and an anterior strip, you would have two narrow canals in the vagina with the united anterior and posterior walls between, and that would do away with the enterocele, which comes down about half way.

HERNIA OF THE BLADDER*.—The patient of whom I speak was operated on for hernia two weeks ago. He is an engineer who, about two months ago, fell from his engine and soon afterward noticed a lump in the right inguinal region. At the time of operation the parts were very difficult to separate, and, although going with the utmost care, the bladder was opened.

* From the Clinic of Prof. W. W. Keen.

Of the cases of hernia of the bladder on record only one has been diagnosticated before being cut into, the others not being recognized until the bladder was opened. This shows the great difficulty in recognizing this condition, and since finding the diverticula of the bladder in this case I have sought for information that might have thrown light on this matter before operation had such a state of affairs been suspected. But I find nothing that would lead to such a diagnosis. From the extreme thinness of the wall of the bladder I thought it must have been in its abnormal position for a long time. But the history is distinctly against this, so it must have been done in the two months. The patient was also questioned carefully as to whether any swelling or pain was noticed when the urine was retained for some time. But this was not the case. There was nothing then to point out the condition before operation.

The wall of the bladder was so excessively thin that I was afraid the stitches would not hold, and that there would be extravasation of urine. The lower part of the wound was not closed, a drainage tube and gauze packing being introduced. The tube was removed after three days and the packing two days later. After the operation there was an intense redness of the skin around the wound. This must have been dermatitis resulting from the iodoform or bichloride used, although not a large amount of either was employed. The vesicles have subsided and the condition is now about at an end.

It was determined to see if urine was being extravasated and for this purpose a tablet of pyoktannin was given at noon and another at night. Not enough came through to stain the dressing, but a chemical test of the fluid obtained by macerating the removed dressings at one time showed the presence of urea. However the amount was so small as to do practically no harm. The patient is doing well now. As to hernia following the operation nothing can be told. An opening was left at the lower end of the wound for the reasons stated, but as the gauze was taken out as soon as possible it is hoped that no hernia will occur.

DEFORMITY OF BIFID NOSE CORRECTED.*—The next case is a boy of about eight years who has a bifid nose that is quite disfiguring. I make an incision in the median line and dis-

* From the Clinic of Prof. W. W. Keen.

sect the tissue away between the skin and cartilages. This is really for the purpose of making a raw surface to join the cartilages. The cartilages are then sewed together, beginning at the tip and proceeding upward. As they are drawn together the skin is approximated so closely that the subcuticular suture which was intended to be used will be unnecessary and I shall put in no sutures at all.

I shall have this treated as I do after hare-lip operations of late. Formerly a dressing was applied, but I like the plan of using no dressing much better. After the operation a nurse is stationed by the side of the patient to keep the wound dry by the use of pads. In two or three hours a crust forms from the slight discharge and the use of the pads and the wound heals under a scab. This method has given good satisfaction in the class of cases mentioned and will be adopted in the present instance.

Society Proceedings.

ORLEANS PARISH MEDICAL SOCIETY MEETING, MAY 13, 1899.

DR. LEBEUF reported an interesting and unusual case of what the French call "*Pédérastie*."

The case was an Italian, aged 49, well developed and apparently in good general health. He came to public clinic at Charity Hospital, suffering with neurasthenia. Other examination proving fruitless, he was accused of masturbation, which was denied. On being pressed, he confessed to having had intercourse with a dog. He had been the object of the dog's sexual act. He said that this had occurred only once. At a subsequent visit, however, a man came with him, and acted as interpreter, who said it must have been kept up for some time, as the man's wife had caught him at it.

The case is interesting as reversing the usual form of bestiality, in which the man is the active agent.

DR. DYER said that the case was interesting, as all these cases are, particularly as so few are reported. He felt sure that if the physicians were active in investigating these cases that more of them would come to light.

Ignorance existed among medical men upon this class of cases because of a certain tendency of morality which kept down publications referring to sexual perversion. He referred to the value of Kraft Ebing's work on sexual perversion and spoke of the recent police proceedings against Havelock Ellis, his publisher, and the bookseller in London handling his work on "Sexual Inversion," all of whom had suffered legally for trying to educate the public to the evils of this class of beings. He referred Dr. LeBeuf to Kraft Ebing's work as full of information on these cases.

DR. DABNEY said that he did not think that Kraft Ebing referred to just such a case of bestiality—that he thought it an unique instance.

DR. LEBEUF concluded by referring to the symptoms presented by the patient; pain in stomach, pain in rectum, pain in nares and post-nasal space. Objectively, the evidence showed edema of the rectum and laceration of its mucous membrane.

DR. GESSNER said that a New Orleans policeman had told him that he knew of a community of some forty boys in his precinct who were practising sodomy.

DR. DABNEY said he had no case to report, but wanted to venture some information on a *field of therapeutics, applied to tuberculosis*, in which he had experimented, but claimed no priority. Nearly all treatment has hitherto been directed at destroying the tubercle bacillus and the toxins, maintaining the tone of the patient meantime. His experiments had been directed at the possible streptococcic infection present.

The first case he had seen with Dr. LeBeuf in consultation, now some eight weeks since. Previous to treatment, the man had been experiencing right along a temperature of from 102 to 102 $\frac{3}{8}$ deg.

He had injected 30 c.c. of Parke, Davis & Co.'s antistreptococcic serum every day for four days at the start. The temperature fell at first injection. After five weeks of the injection the patient was at his work, and is now apparently well.

The second case, he had seen with Dr. Sauter. This case had a temperature of 103 $\frac{3}{8}$ deg. Sputum examination, as in first case, showed bacilli in plenty. The temperature fell to 100 deg. at first injection, and to 98 $\frac{1}{2}$ deg. at second injection, and has remained at that. He has steadily improved since.

The third case was in his own practice. It was a case of severe laryngeal infection, which had gone the rounds, had been treated at the Eye, Ear, Nose and Throat Hospital, and had grown steadily worse. The injections were futile, and the case duly died.

The fourth case he had seen was from Algiers. The first injection was given five days ago. The patient had grown steadily worse. After injection, the pulse grew weaker and the beats increased to 140 per minute. Suffered from light-headedness. The temperature, however, fell from 103 deg. to 100 deg. Three days ago gave the second injection. No improvement.

He reported the experiments to develop the fact that we perhaps paid too much attention to the tubercle and did not direct enough attention to streptococcic development.

DR. PARHAM asked if the pus germs in sputa had been examined for the streptococci. He did not believe that streptococcic serum would avail if only staphylococcic infection existed.

If the examination demonstrated the streptococci, the experiments were valuable.

He recalled a case of a sequestered femur. Tuberculous foci were found. Cultures were made from the deposits and the bacilli were duly found. Streptococci were found present also.

DR. LEBEUF, referring to the case seen by Dr. Dabney with him, said that the physical examination at the time left no doubt as to the diagnosis; that the sputum showed the bacilli. Now, no sputum was to be had. The case is interesting because his occupation as a bartender compels him to stand in water, and despite of the bad conditions his health has remained good for over eight weeks.

DR. DABNEY acknowledged Dr. Parham's plea for scientific procedure. He had been haphazard, but believed that this sometimes succeeded when scientific methods failed. He said that, perhaps, the anti-streptococcic serum had some antitoxic action upon staphylococci and other cocci. He related an experience with a local pathologist, wherein he had presented a specimen of what might have been mole pregnancy in a multipara. The specimen was found in two sections, one weighing 1400 grams, the other 500 grams. The pathologist said it might be an "after-birth," but as there had been no child, this could not be. He finally got the pathologist, who suggested

that the butcher shop had been visited for the specimen, to express the written opinion that the specimen was a placenta.

DR. PERKINS said that a number of authors concurred in the opinion that any antitoxin had an effect upon other germs than the one of which it was an antitoxin. Serum tests evidence this. The Widal test, for example, produced common effects upon yellow fever as well as typhoid.

DR. MAINEGRA reported an interesting case of fracture of the femur in a new-born child. He had experienced much difficulty in adjusting a bandage and found that when applied so much interference with the circulation was produced that it had to be removed

He finally had called Dr. Matas in consultation, and they had put on a bandage, from the armpits down, practically swathing the child from the knee to the shoulders. Successful union had resulted, but an angular deformity had occurred with callous formation, which had to be broken. The case was well in fourteen days, but there was some shortening.

DR. JONES reported two instances of rapid union, one in a colored boy of twelve years of age, where the union was complete in ten days.

The second case was in a younger child. The bandage was removed on the fifth day, and he had considered union complete and the case well on the eighth day.

The society voted to award its gold medal for display of surgical instruments at the Louisiana Industrial Exposition to the exhibit showing the necessary merit, whether there were more than one, or only one exhibit. The Executive Committee of the Society were authorized to act as a committee of award, as this had been suggested by the officers of the committee in charge of the awards at the Exposition.

LOUISIANA STATE MEDICAL SOCIETY MEETING, NEW
ORLEANS, MAY 16, 17, 18, 1899.

The meeting was held at the Medical Department of Tulane University. There was a fair attendance from the country parishes, while the city was well represented. The president, Dr. G. A. B. Hays, called the meeting to order and held the chair during the entire session.

The morning of the first day was devoted to organization and to the reports of committees.

There was no afternoon session, the meeting having adjourned until the night session, which began at 8 o'clock.

Upon the recommendation of the judiciary committee the following members were elected by ballot of the secretary: Drs. Abramson, Lazard, Gordon King, A. Pettit, Wm. Kohlman, J. Barnett and H. E. Ménage, of New Orleans; Dr. James Kilbourne, of Clinton; A. J. Smith, Franklin; H. S. Joseph, Melville; Davis H. Tucker, Baldwin; B. E. Clark, Branch; E. D. Newell, King.

President Hays read an interesting address. He reviewed the origin and growth of the society, and in touching upon internal matters advocated the employment of a paid secretary, as the work of the desk had grown to be too much to put upon an active practitioner. In concluding his report, Dr. Hays, who is superintendent of the State Insane Asylum, called attention to its 1130 inmates, supported on the same appropriation that was made when the asylum had but 700 patients, and added that with the exception of a \$500 legacy left by a New Yorker whose brother was an inmate for twenty years, and two appropriations of \$100 each by the parish police jury of Iberville, the asylum was without support from the outside. The poverty of the institution was in striking contrast, Dr. Hays said, with the outdoor clinics of the Charity Hospital, amply supported, with their 19,000 patients, some of whom, if not many of whom, were as well-to-do as some of the physicians who gave them free treatment. He would not utter one word against free treatment of any really unable to pay therefor, but the charitableness of physicians was imposed upon by many, he declared, while the time and money so spent on those who could pay for medical attention ought to be devoted to the tenderest and the best of all charities, the care of the insane.

DR. L. SEXTON, of New Orleans, read a paper on "*Are Summer Excavations Permissible in the City of New Orleans?*" The essayist took a strongly affirmative position on the proposition. The upturning of virgin soil and forest ground might, probably did, contribute to malaria, sometimes of malignant character, and that did apply to New Orleans in the past, when her sanitary condition was extremely bad, and when the shipping of

the city was filthiness itself. Was it true to-day, however, that upturning of the streets causes disease?

In recent years the streets had been constantly torn up for paving purposes, for the laying of tracks of trolley lines, for the building of the Camp street and Melpomene street culverts, and last year for the drainage work through St. Louis street. The progress of these works had been carefully watched by the health authorities, who found that the upturning of the street did not create any increase of sickness in that locality. Facts failed to show any justification in recent years for fears that summer excavations in New Orleans caused or increased disease.

DR. GORDON KING, of New Orleans, read an interesting report for Dr. de Roaldes and himself of a case of *Eunuchoid or falsetto voice*, which has been cured by vocal gymnastics (see May number of JOURNAL).

DR. E. M. DUPAQUIER, of New Orleans, read a paper on the *Respiratory Complications of Intermittent Malarial Fever*, and reported cases to emphasize the points in his paper. The doctor called attention to the value of bichloride of quinin by hypodermic method in these cases. Some discussion followed, particularly directed at the treatment.

DR. L. G. LEBEUF, of New Orleans, read a paper on *Malarial Hematuria*, especially referring to the treatment, and the necessity for exactness in diagnosis.

DR. J. A. STORCK, of New Orleans, read a very interesting paper on *Eruclation of Inflammable Gases*, which closed the evening's session. A paper by Dr. Paul von Seydewitz on *Practical Hints on Therapeutics and Dietetics, etc.*, was read by title owing to the lateness of the hour.

SECOND DAY.

The morning session was largely devoted to routine matters, the Nominating Committee being selected from the several parishes by their representatives, and organizing duly. A very interesting report was made by Dr. Bruns, of New Orleans, on some eye work done in New Orleans.

DR. BRUNS told first of an *Operation for the Removal of the Lens of the Eye in Case of Extreme Myopia*, or near-sightedness, which is the result of enlargement of the lens of the eye. The

ordinary correction is the concave eyeglass, which neutralizes the effect of the undue thickening of the lens of the eye. In the case under discussion, the patient was so near-sighted that three feet was the greatest distance at which she could see objects discernible to the normal vision at a distance of two hundred feet. The result of her visual defect was that she was virtually blind, and in a few years would have become stone blind, despite the use of the thickest-edged glasses made for near-sightedness. By cutting into the side of the eye, Dr. Bruns removed the lens of the eye entirely, which partially remedied the defective focusing, and then fitted the patient with glasses, with the result that she is now able to see, at a maximum distance of twenty feet, objects which the ordinary normal vision perceives at forty feet. In other words, the removal of the eye lens has made it possible for her vision, formerly $\frac{1}{70}$ normal, to be made $\frac{1}{2}$ normal, or 35 times as good as it used to be. This operation to produce satisfactory results must, Dr. Bruns said, be performed in youth.

The other operation discussed by Dr. Bruns was one performed for the first time in America when it was performed recently by him and his associates in the Eye, Ear, Nose, and Throat Hospital. It was the *Transportation of the End of a Portion of the Superior Rectus from the Surface of the Eye to the Interior Surface of the Lid, to Correct Drooping Lid, or Ptosis*. There are four muscles controlling the eye, one on top, one beneath, and one on each side. The muscle on top, known as the superior rectus, not only operates to upturn the eye, but is also the muscle which when contracted, serves also the function of steadying the eye. The operation for ptosis or drooping of the upper lid, consisted in splitting this superior rectus in two sections, one twice the size of the other, and cutting the end of the smaller section from the surface of the eye and fastening it to the interior surface of the eyelid. Thus when the superior rectus was brought into play to upturn the eye, the eyelid was elevated automatically, and similarly, when the superior rectus was brought into play to steady the eye in a fixed gaze at any object, its contraction raised the upper lid to a normal position as referred to the eyeball, and steadied it at the same time that the eye was steadied.

The evening session of the society convened promptly, Presi-

dent Hays in the chair, and the program was immediately taken up. Surgery occupied the attention of the session.

Dr. C. CHASSAIGNAC read a most interesting *Demonstration of Bottini's Prostatic Incisor, with Remarks on Hypertrophy of the Prostate*. The apparatus was demonstrated in detail, the doctor making a very explicit running comment on the same. Some discussion followed, bringing out the limitations of the usefulness of the apparatus, but emphasizing the importance of its introduction.

Dr. WALMSLEY talked interestingly of electric burns.

Dr. FELIX LARUE reported a case of *the Removal of Bones of the Foot*. The patient was shown to the society and proved interesting, as the result was satisfactory.

Dr. A. FELTUS BARROW presented the report of the State Medical Examining Board relative to the difficulties under which it is at present working, and asking the society to put its opinion regarding the needs of the board on record. The report spoke of the law, which was amended at the last session of the Legislature, under which it is at present working, and of the effect of the amendments.

Dr. E. D. MARTIN reported a case of *the Removal of an Ovarian Cyst*, with specimen. The patient is recovering.

THE NOMINATING COMMITTEE recommended the following officers to serve for the ensuing year. The report was adopted and the recommended officers duly elected:

President—Dr. W. G. Owen, of Iberville parish.

Vice Presidents—First District, Dr. Felix Formento, New Orleans; second, Dr. F. W. Parham, New Orleans; third, Dr. W. A. Holloway, Rosedale; fourth, Dr. W. E. Schumpert, Shreveport; fifth, Dr. J. B. Bonney, Rigolets; sixth, Dr. G. C. Mouton, Rayne.

Recording secretary, Dr. H. B. Gessner; treasurer, Dr. H. S. Cocram, corresponding secretary; Dr. A. G. Friedrichs.

THIRD DAY.

Morning session: Convened at the usual hour and was devoted to the reading and discussion of miscellaneous papers.

Dr. M. H. MCGUIRE, formerly assistant surgeon in the First Louisiana Regiment, read a paper on *Some Observations on Camp Fevers During the Hispano-American War*. He recounted his ex-

periences with the fever patients at Miami, Fla., and said that the newspaper accounts of the hospital situation there had been greatly exaggerated, in so far as the percentage of deaths was concerned. He referred briefly to the epidemic of jaundice among the soldiers and mentioned the investigation that had been made, because of some suspicion that it might be yellow fever. Dr. McGuire said that the principal reason for the sickness was, as was given out at the time, the fact that the men drank from wells which had been dug in close proximity to a stream polluted with fecal matter.

DR. KOHNKE asked for some information about the spread of jaundice at Miami in relation to the investigation of the Florida State physicians and Marine Hospital physicians on suspicion that it might be yellow fever. Dr. McGuire explained the matter further by detailing what had been done and the negative conclusions reached. He was positive that there was no yellow fever at Miami during the stay of part of the Seventh Army Corps there.

DR. W. E. PARKER discussed the subject in its relations to the division and general hospitals of the army with which he was connected while in Cuba. He had something to say on the canned beef question, expressing the opinion that it had a good deal to do with the cases of typhoid fever in his hospital, as the water came down from the mountains in pipes and was not contaminated. The canned beef was in some cases found rotten on the transports and men could not eat it.

DR. HAMILTON JONES said that in his opinion there was a vast deal of yellow fever on the island of Cuba, and he did not believe that Santiago was entirely free of it during last winter, notwithstanding the great improvement in the sanitary condition of the town. He gave an account of his own case of yellow fever which he had while in Cuba and stated that he found many of the symptoms similar to those he had in 1878. Of course, in some parts of the island the disease was of a milder type than in other parts. As for typhoid fever, diarrhea, and dysentery, they were diseases which were produced by specific causes and he did not think that bad rations were in most cases the cause of sickness. Near Siboney was a contaminated stream from which 17,000 soldiers drank and this fact should be taken into consideration. He had advised, and so had others, that

the men eat the native fruit, such as mangoes, pineapples, etc., instead of the can or refrigerated beef, and he was of the opinion that there would have been less sickness had this been done.

DR. CHAILLÉ asked about the canned roast beef and said that he wanted to know the truth in the matter, as the newspaper accounts of the beef inquiry board meetings were either garbled or made to suit political purposes.

DR. PARKER said that the experience of his regiment was that the beef was confoundedly bad. "We had to put up with it, though, or go hungry; that is, on the transports. While in Cuba we occasionally got fresh beef, but that was after the surrender of Santiago. On the transport going back to New York we had thousands of cans of roast beef on board, but the men positively would not eat it, declaring that it made them sick. When we arrived at New York there were just as many cans on board as when we started."

DR. ARCHINARD said that the beef was bad, very bad. "It was white, stringy, bad smelling and in some of the popped cans a black edging had formed around the meat and there were vermin on it. This roast beef surely did cause sickness. There was never any doubt of that in his mind. Dr. Daly, a Pennsylvania surgeon, for whom General Miles had the highest regard, and who was his superior officer in the hospital, reported to headquarters that upon investigation he had found that the canned roast beef had been injected with boric acid, and that the men should not be permitted to eat it. Now, when an eminent surgeon and physician like Dr. Daly makes this statement it can be put down as a truth that the canned beef was unfit for human consumption."

DR. S. P. DELAUP read a paper on *Gunshot Injuries of the Spine*, relating a case in detail, giving statistics regarding spinal diseases caused by gunshot or pistol balls lodging in the vertebræ or the spinal column and severing it.

A number of papers were read by title, and Dr. J. B. Wilkinson, Jr., was elected to honorary membership. This concluded the morning session.

The afternoon session began at 4 o'clock.

DR. PAUL GELPI gave a practical explanation of the anti-venomous serum of Calmette, giving the details of its experimental efficacy and of its preparation.

DR. W. H. GRAHAM, of Lake End, read an interesting paper, *Abdominal Section for Gunshot Wounds, with Twelve Intestinal Perforations; Recovery*, and it was discussed by several members of the society.

DR. W. G. OWEN, the newly elected president, was then inducted into office by the retiring president, Dr. Hays, who took occasion to compliment the society on its able selection. President Owen made a few remarks pertinent to the occasion, stating that his aim was to make the Louisiana State Medical Society large and influential and powerful to the profession in this State, and the goal which all reputable physicians would try to reach.

The new president made an announcement of the chairmanships of sections to be discussed at the next meeting and also of committees.

Following were the committees appointed:

Organization—Dr. Webb, chairman; Drs. A. A. Allain, E. D. Newell, S. L. Théard, R. W. Theary, J. Harrison, A. R. Robertson, J. O. Armstrong, J. F. Piggott, J. J. Archinard.

Necrology—Six vice presidents.

Medical Legislation—Dr. H. D. Bruns, chairman; Drs. Geo. A. B. Hays, Chas. Chassaignac, E. L. McGehee, J. C. Egan, Chas. McVea, J. W. Dupree.

Publication—Dr. Q. Kohnke, chairman; A. G. Friedrichs, E. Souchon, W. L. Dickson, C. Miller, L. G. LeBeuf, T. S. Dabney.

Judiciary—Dr. R. L. Randolph, chairman; Drs. P. E. Archinard, E. Denegre Martin, J. J. Ayo, J. B. Bonney, G. W. Martin, W. L. Holloway, C. D. Simmons, L. G. LeBeuf, S. J. Smart, G. W. Ramage.

State Library—Dr. F. J. Kearney, chairman; Drs. N. M. Hébert, L. M. Provosty, H. S. Joseph, W. G. Branch, Luther Sexton, F. R. Tolson.

The following delegates from the society to the meeting of the American Medical Association were selected: Drs. S. J. Smart, R. Hunt, R. Matas, W. E. Parker, H. S. Joseph, E. D. Newell, A. W. de Roaldes, R. H. Viallon, F. J. Kearney, W. A. Holloway, L. H. Postell, T. E. Schumpert, E. Souchon. They will meet in June of this year at Cleveland, Ohio.

To the International Medical Congress, which is to be held in Paris next year: Drs. W. E. Parker and Chas. Chassaignac.

The press of the city, and especially the *Picayune* and *Times-Democrat*, were thanked for courtesies extended, as was also the faculty of the medical college for the hall.

The meeting then adjourned.

FIFTH ANNUAL MEETING, CHARITY HOSPITAL ALUMNI ASSOCIATION.

The meeting was held on May 15, in the assembly room of the Tulane Medical Department. Dr. J. J. Castellanos, the president, called the meeting to order.

Committee reports were read and the president delivered his annual address. The chief points in this were directed at an improvement in the method of selecting the house surgeons at the hospital, which in his opinion should be from the ranks of the hospital alumni, and by competitive examination. The term of service should be limited to four years.

The address further suggested organization of volunteer contributors among the members of the alumni, who should systematically report cases from the Charity Hospital in the columns of the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*, which was always open to the association. Routine matters were discussed, and the following officers were elected at the afternoon session:

President, Dr. Chas. Chassaignac; vice president, Dr. L. M. Provosty; secretary, Dr. J. Barnett; treasurer, Dr. M. McGuire. Drs. E. L. McGehee, E. D. Fenner and H. B. Gessner were elected members of the executive committee, together with the president and secretary. At the evening meeting, Dr. W. E. Parker read a most interesting historical sketch of the Charity Hospital from 1877 to 1894. The sketch was graphically descriptive of the gradual improvement of the hospital in all its departments and facilities up to the completion of the new amphitheatre.

This paper was followed by an eloquent address by the Rev. Beverly Warner, showing a beautiful picture of the sidelights in a physician's life.

Upon the adjournment of the meeting the members met later at a pleasant and enjoyable banquet at Antoine's.

N. O. Medical and Surgical Journal.

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

FEDERAL INVESTIGATION OF LEPROSY.

The fruits of the work of the leprosy conference, held in Berlin in 1897, are on the eve of becoming evident. Until now casual attention has been given in the medical press to the existence of leprosy in the United States. This has resulted in some agitation, to the extent of attracting popular attention to the existence of leprosy in this country and to exciting some desire for its investigation.

Congress was memorialized some years ago but without result.

Perhaps the acquisition of Hawaii and the Philippines have brought affairs to a focus, for the Sandwich Islands are a synonym for leprosy to the mind of the average layman.

At any rate the United States government, through its Marine Hospital Service, has already made some general investigations of leprosy conditions in Hawaii with the conclusion that much more exists there than is generally supposed.

This investigation in Hawaii has led to a recommendation to Congress by the Supervising Surgeon General of the Marine Hospital Service, to provide for an investigation of leprosy in the United States.

This recommendation, backed by the power of the Treasury Department, has resulted in the passage of an act of Congress directed at such investigation.

The act and the letter of recommendation are published in the Government Public Health Reports for March 10, 1899. This is one step toward the accomplishment of the purpose of the International Leprosy Conference of Berlin. Each delegate to that conference was impressed with the necessity of a more exact knowledge of leprosy conditions in the world, particularly as in only a few of the many infected countries was there any efficient mode of investigation in practice.

The Marine Hospital Service is usually efficient and their work along other lines of scientific investigation has always been worthy of commendation.

The task now before them is far from easy, however, for the reasons that already the focuses in which this disease has appeared are many and because medical men are less public-spirited than they should be, being often secretive where family interests of their clients are involved.

We are glad that the work is to be done and feel that even if it is only a starting wedge, the result must eventually be directed at the national control of leprosy, a control which state institutions must fail in effecting, because political advantage is taken of local institutions.

PHILANTHROPY SENSIBLE AND TRUE.

Pity is said to be akin to love. This is true only because pity comes near being charity, and charity is so near love. Whatever may be the fine distinctions between the three need not concern us for the moment, for philanthropy, which is our theme, includes them all and is greater, for it is more comprehensive.

Just as charity can lack intelligence and can even be actually harmful, when indiscriminate for instance, so can philanthropy depart from the type which serves as a heading to this article.

As a typical illustration of philanthropy of the right kind stands the Richard Milliken Memorial Hospital for Children which was formally inaugurated by the Charity Hospital on May 4, 1899, in this city.

The gift of a noble woman, it is true philanthropy because, properly administered, it can only do good; it supplies a deficiency in our State institution, and is to minister to those who are helpless, but helpless through no fault of theirs; to those whose sufferings, if allowed to go unrelieved, are due frequently to the carelessness, ignorance or vice of others; to those who are still uncalculating and natural, who can not yet be impostors.

Hence, it is true philanthropy because it is intelligent in its application to its beneficiaries. It is sensible philanthropy as well from the standpoint of the beneficent one. She is wise enough to do a kind act whose blessed results she can witness;

she perpetuates the memory of a beloved companion in a *living* manner; and she has the satisfaction of seeing the beautiful commemorative edifice tend to accomplish much in line with the acts of Him who "went about doing good" and who said "suffer little children to come unto me, for of such is the kingdom of heaven."

The building dedicated to this worthy object is substantial and imposing, yet cheerful and ornamental. Excellently well devised for its purpose, possessing the most modern and complete sanitary appurtenances, it has been supplied by its donor with the most tasty furniture, linen, and other household goods. All in all, it compares favorably with any children's hospital in this or any other country, and becomes the special pride of that institution we were already so proud of—the dear old Charity Hospital!

As it stands to-day, the Milliken Hospital for Children is a lasting proof that the gentle soul which conceived it can answer in the affirmative Schiller's stanza which is etched on one of its beautiful memorial windows:

See! full of hope, thou trustest to the earth
The golden seed, and waiteth till the Spring
Summons the buried to a happier birth;
But, in Time's furrow duly scattering
Think'st thou how deeds, by wisdom sown, may be
Silently ripen'd for Eternity?

Medical News Items.

THE COMMENCEMENT OF THE MEDICAL DEPARTMENT OF TULANE UNIVERSITY was held on Wednesday, May 3, at the Grand Opera House, in New Orleans. The usual arrangement of program obtained.

After the dean's address, and the conferring of degrees, a strong address was delivered by Prof. E. A. Alderman, president of the University of North Carolina.

Dr. W. E. Kittredge, of New Orleans, was valedictorian.

There were eighty-five graduates in medicine and eleven graduates in pharmacy.

THE STATE BOARD OF MEDICAL EXAMINERS met May 1, and were in session four days. They examined seventy-eight applicants for licenses to practise medicine and seven to practise midwifery. Of these, sixty-two white and three negroes were granted medical licenses and one applicant for midwife's license was successful.

AT THE MEETING OF THE TEXAS STATE MEDICAL ASSOCIATION, held the last week of April in San Antonio, several important matters of medical legislation were discussed. Among others a report was read urging a revision of the present system of health and sanitation so that Texas should have a Board of Health instead of a State health officer.

The argument was made upon the ground that hitherto that officer had restricted his labors to quarantine, while the investigation of contagious diseases and of food and medicine has been ignored. The Laredo small-pox incident was related, and the absence of information upon vital statistics or of contagious disease.

A lengthy memorial was submitted with the report, all of which was adopted by the association, and a committee was appointed to convey the memorial to the Governor of the State. This committee was as follows: Drs. W. M. Cunningham, Bastrop; R. H. Harrison, Columbus; M. M. Smith and A. N. Denton, Austin; Dr. James H. Bell, of San Antonio.

THE RICHARD MILLIKEN MEMORIAL HOSPITAL FOR CHILDREN was dedicated on the afternoon of May 4, 1899. A large audience was present paying tribute to the occasion of the magnificent monument to a beneficent charity.

THE NEW ORLEANS POLYCLINIC closed its twelfth annual session on May 13 after the most successful session it has yet had.

THE LOUISIANA STATE BOARD OF HEALTH met in New Orleans May 15. President Souchon presided and those in attendance were:

Dr. J. C. Egan, Shreveport; Dr. T. T. Tarleton, Grand Coteau; W. G. Owen, White Castle; Dr. P. L. Randolph, Alexandria, Dr. A. Nolte, New Orleans; Dr. P. B. McCutcheon, New Orleans; Col. F. C. Zacharie, attorney; Dr. C. P. Wilkinson, quarantine physician; Dr. W. W. Ashton, special resident

physician; Dr. C. L. Horton, State medical inspector; Dr. S. G. Gill, shipping inspector; Dr. John Gazzo, of Lafourche, health officer; Capt. Jas. Blouin, coal oil inspector.

The new members, Dr. Nolte and Dr. McCutcheon were duly installed as members of the board.

President Souchon reported that small-pox was on the decrease throughout the State.

Dr. John Gazzo, the health officer of Lafourche parish, reported that there had been no new cases of small-pox in his parish for some little time, a week or so back. All small-pox patients had been discharged as cured. Vaccination had been general throughout the parish. After several routine reports were read, the sanitary code was taken up section by section, and, after considerable discussion, adopted. This code is not mandatory, but in the nature of a recommendation to the various local boards of health. It is meant for the guidance of the health authorities throughout the State, and explains the relation of the State Board to the local boards. It is designed to carry out the recommendations of the law enacted by the last Legislature, establishing the State Board of Health, and to help in the establishment of the sanitary system of Louisiana on a uniform basis.

APPOINTED HEALTH INSPECTOR.—Dr. W. W. Ashton, of Alexandria, has been appointed by the State Board of Health to act as inspector in New Orleans, in the interest of the country parishes, during the hot months.

THE LOUISIANA STATE PHARMACEUTICAL ASSOCIATION met May 16 and 17, in the assembly room of the Medical Department of Tulane.

Most of the sessions were devoted to matters pertinent to the association and of little general interest. The following officers, all of New Orleans, were elected for the coming year: president, William M. Levy; first vice president, Prof. T. A. Quayle; second vice president, Warren R. Ellis; recording secretary, W. P. Duplantis; corresponding secretary, Miss Rosalie E. Cook; treasurer, George S. Brown.

A GENERAL CONVENTION FOR THE REVISION OF THE UNITED STATES PHARMACOPEIA will be held in Washington, D. C., beginning the first Wednesday in May, 1900.

THE JEFFERSONIAN has just issued as a monthly, published by the students of Jefferson Medical College in Philadelphia.

As this periodical is published in the interest of Jefferson students and graduates, all alumni from that college are asked to write the Jeffersonian giving such information about themselves as they can and will.

THE JOURNAL OF TUBERCULOSIS is the title of a quarterly magazine edited by Dr. Karl Von Ruck, of Asheville. The April number (the first we have seen) is quite neatly arranged and is full of material pertinent to the title of the journal.

DR. WM. C. CUTLER died in Chelsea, Mass., on May 1. Dr. Cutler was prominent in local health matters, and was identified with the New England Vaccine Company as its founder.

A RESOLUTION WAS PASSED BY THE LOUISIANA STATE MEDICAL SOCIETY, condemnatory of the discrimination apparent in the resolutions of the American Medical Association adopted last year in Denver directed at disbarring from its membership graduates, professors, teachers, and others connected with colleges having less than a four years' course, January, 1899. The resolution was based on the fact that as the Southern medical colleges were for the most part three-year institutions, that it was a discrimination of an invidious nature, particularly as some of the Southern colleges, Tulane among them, had already announced a four years' course as projected for the future, beginning with the 1899-1900 session.

THE SEI-I-KWAI has come out in new type and new cover. The change is quite acceptable and with it improvement in the text has followed, as the last two numbers have had articles full of local lights.

THE ATLANTA MEDICAL AND SURGICAL JOURNAL and the *Southern Medical Record* have combined to form the *Atlanta Journal-Record of Medicine*. The editorial management is in the hands of Drs. Bernard Wolff and Dunbar Roy, while Dr. M. B. Hutchins assumes the business management. The aim of the new enterprise is to make the *Journal-Record* the chief exponent of medicine in the South, in which commendable ambition the JOURNAL congratulates and felicitates them.

PUBLICATIONS RECEIVED.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General, by Prof. Ludwig Edinger, M. D.—The F. A. Davis Company, Philadelphia, New York, Chicago, 1899.

Practical Materia Medica for Nurses, by Emily A. M. Stoney.—W. B. Saunders, Philadelphia, 1899.

Atlas of the External Diseases of the Eye, Including a Brief Treatise of the Pathology and Treatment, by Prof. O. Haab, M. D., Edited by G. E. de Schwetnitz, M. D.—W. B. Saunders, Philadelphia, 1899.

Treatise on Human Physiology, by Henry C. Chapman, M. D.—Lea Bros. & Co., Philadelphia, 1899.

Massage and the Original Swedish Movements, by Kerro W. Ostrom.—P. Blakiston's Son & Co., Philadelphia, 1899.

Transactions of the American Dermatological Association, by John T. Bowen, M. D.—The Rumford Press, Concord, N. H., 1899.

Public Health Reports, Issued by the Supervising Surgeon-General Marine Hospital Service, Vol. XIII, Nos. 1 to 52.—Washington: Government Printing Office, 1899.

Diet Lists with Recipes.—Smith, Kline & French Co., Philadelphia, 1899.

Materia Medica and Therapeutics, by J. Mitchell Bruce, M. D.—Lea Bros. & Co., Philadelphia, 1899.

An Epitome of the History of Medicine, by Roswell Park, M. D. The F. A. Davis Company, New York, Chicago, Philadelphia, 1899.

The Medical Complications, Accidents and Sequelæ of Typhoid or Enteric Fever, by Hobart Amory Hare, M. D.—Lea Bros. & Co., Philadelphia and New York, 1899.

A Text-Book of Anatomy by American Authors, Edited by Frederic Henry Gerrish, M. D.—Lea Bros. & Co., Philadelphia and New York, 1899.

REPRINTS.

The Shape and Position of the Stomach, by Henry Wald Bettman, M. D.
The Absolute and Permanent Cure of Tonsillitis, the Bête Noir of the Vocalist, by Edwin Pynchon, M. D.

The Progress of Rhino-Laryngology, by W. Scheppegegrell, M. D.

MORTUARY REPORT OF NEW ORLEANS.

(Computed from the Monthly Bulletin of the Board of Health of the City of New Orleans.)
FOR APRIL, 1899.

CAUSE.	White	Colored....	Total
Fever, Malarial (unclassified).....		1	1
“ “ Intermittent		1	3
“ “ Remittent	2	1	5
“ “ Congestive.....	4	1	5
“ “ Typho	3	2	5
“ Yellow			
“ Typhoid or Enteric.....	1	2	3
“ Puerperal			
Influenza.....	2	4	6
Measles			
Diphtheria	1		1
Whooping Cough	2	1	3
Apoplexy	13	3	16
Congestion of Brain.....	4	2	6
Meningitis	14	6	20
Pneumonia.....	28	27	55
Bronchitis	12	14	26
Cancer.....	13	2	15
Consumption.....	33	35	68
Bright's Disease (Nephritis)	23	14	37
Uremia	4	3	7
Diarrhea (Enteritis).....	19	18	37
Gastro-Enteritis	8	2	10
Dysentery.....	7	2	9
Hepatitis	1		1
Hepatic Cirrhosis	5	1	6
Peritonitis.....	4	1	5
Debility, General	5	1	6
“ Senile	19	8	27
“ Infantile	3	3	6
Heart, Diseases of	27	26	53
Tetanus, Idiopathic		1	1
“ Traumatic	4	3	7
Trismus Nascentium.....	1	3	4
Injuries	6	5	11
Suicide	1	2	3
All Other Causes	124	53	177
TOTAL	393	247	640

Still-born Children—White, 18; colored, 6; total, 24.

Population of City (estimated)—White, 210,000; colored, 90,000; total, 300,000.

Death Rate per 1000 per annum for month—White, 18.71; colored, 27.44; total, 21.33.

METEOROLOGIC SUMMARY.

(U. S. Weather Bureau.)

Mean atmospheric pressure..... 30.06
 Mean temperature

Mean temperature

Total precipitation..... 1.56 inches

Prevailing direction of wind, southeast.

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