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The Parasitic Amebæ of Man and their Relation to Disease.*

By CHARLES F. CRAIG, Captain Medical Corps, U. S. Army,
Washington, D. C.

It is my purpose in this paper to give a summary of our present knowledge of the parasitic amebæ of man with special reference to the species described, the question of their cultivation, and their relation to disease.

The subject of amebic infection is of considerable importance to practitioners in the Southern States, for such infections are not infrequently observed, and it is probable that a careful examination of the feces of all patients suffering from diarrhea or dysentery would demonstrate that amebæ are much more frequently the cause of disease throughout the United States than is generally supposed.

Recent researches have definitely proven that at least two species of amebæ which are parasitic in man are capable of producing dysentery, and that one species, very commonly observed in both

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healthy and diseased individuals, is a harmless commensal of the human intestine. It therefore follows that a diagnosis of amebic dysentery based upon the mere finding of amebæ in the feces is worthless unless the organisms are determined to belong to one of the species causing dysentery. The term "amebiasis," so frequently used to indicate amebic infection, is a misnomer, if by it we mean infection with pathogenic amebæ, for individuals showing the harmless ameba in the feces are as truly subjects of "amebiasis" as those showing the pathogenic species. For this reason the term should only be used in its broadest sense as meaning infection with any ameba. Infection with a pathogenic species should be more definitely restricted and the terms "amebic dysentery," indicating dysentery due to entamebæ, and "amebic abscess of the liver," indicating an abscess of this organ due to the same cause, should replace the general term, "amebiasis."

As regards the differentiation of species it must be admitted that this can only be done by one who has had considerable experience in the study of amebæ, although I entirely disagree with the statement, made by some authors, that one must be a protozoologist, in order to make such a differentiation.

Any physician who has had proper laboratory training should be able to differentiate the parasitic amebæ of man after the careful study of a few cases of infection with the different species, and with the aid of the numerous excellent descriptions which have been published of these organisms.

Species.—As is well known the first clear description of an ameba occurring in man was given by Loesch[1], who, in 1875, described an organism occurring in the feces of a patient in St. Petersburg to which he gave the name, *Ameba coli,* but it was not until the appearance of the work of Kartulis[2], in 1886, that much attention was paid to these organisms as a possible cause of disease. The latter author described the amebæ which he found in 150 cases of dysentery observed in Egypt, and considered them the cause of the condition. His work was followed by that of Hlava[3], Osler[4], Dock[5], and finally by the classical monograph of Councilman and LaFleur[6], which established the fact that amebæ were the cause of a specific form of dysentery. This publication, which appeared in 1891, was followed in 1894 by that of Kruse and Pasquale[7], who confirmed the work of Councilman and LaFleur.

In 1897 Cassagrandi and Barbagallo[8], established the genus *Entameba* for the amebæ parasitic in man, stating that they differed both in morphology and life cycle from free-living amebæ belonging to the genus *Ameba.*

The later investigations of Harris[9], Strong and Musgrave[10], and of Musgrave and Clegg[11], added much to our knowledge of these organisms and the latter observers were able to cultivate amebæ from the intestine of man and from the pus of liver abscesses as well as from water, fresh vegetables, and other sources.

A number of attempts had been made prior to 1903, to differentiate the amebæ in man into species, but without success so far as any definite classification was concerned. Strong and Musgrave[10] considered that both a pathogenic and non-pathogenic species of ameba occurred in man and their work was supported by that of Jurgens[12], who also recognized a pathogenic and harmless species. However, no clear description of species based upon both morphology and life history was given until the appearance of Schaudinn's[13] paper in 1903 in which he demonstrated that at least two species of ameba occurred in man; one, a harmless parasite, which he called *Entameba coli;* and the other, the cause of a form of dysentery, which he called *Entameba histolytica.* I was able to confirm Schaudinn's work in 1905[14], and it has since been confirmed by Hartman[15], Viereck[16], Wenyon[17], Werner[18], Fantham[19], Stiles[20], Whitmore[21], Walker[22], and many others.

Schaudinn accepted Casagrandi and Barbagallo's genus *Entameba* for the parasitic amebæ of man and all zoologists have followed his example. Therefore infection with parasitic amebæ should be known as "entamebiasis" instead of "amebiasis."

The next publication of importance was that of Viereck[16], who, in 1906, described a third species of entameba occurring in man which he named *Entameba tetragena,* and which is also the cause of a specific form of dysentery. Viereck's work was confirmed by Hartman [23], Whitmore [21], Prowazek [24] and myself [25] and this parasite is now generally accepted as a distinct pathogenic species.

In a recent article Walker states that he believes that *Entameba tetragena* is merely a variety of *Entameba histolytica,* but this opinion is supported by inconclusive evidence and cannot be accepted at the present time.

In addition to the three species mentioned, several others have

been described as occurring in man, as *Entameba tropicalis,* Lesage[26]; *Entameba minuta,* Elmassian[27]; *Entameba nipponica,* Koidzumi[28]; *Entameba williamsi,* Prowazek[29], and *Entameba polecki,* Prowazek[30]. It is generally conceded that most, if not all, of these species are founded upon insufficient data and that they will be found to be identical with one or the other of the species already mentioned.

At the same time that our knowledge of the parasitic amebæ of man had been developing a number of species have been described Lesage[26]; *Entameba minuta,* Elmassian [27]; *Entameba nipponica, ranarum,* of the frog, described by Dobell[31] and Hartmann; *Entameba muris,* of the mouse, described by Wenyon[32]; *Entameba testudinis,* of the turtle, described by Hartmann[33], and *Entameba nutalli,* a parasitic species of monkeys, described by Castellani[34]. The latter organism is of special importance because it produces dysentery in these animals and has probably been mistaken for the pathogenic species of man, in monkeys used for experimental purposes.

From this summary of the species of entamebæ which have been described it will be noted that there are three well defined species which are generally accepted as parasitic in man, *i. e., Entameba coli, Entameba histolytica* and *Entameba tetragena.* The differentiation of these species is based upon both the morphology and life history, but it is impossible in a paper of this character to describe these organisms in detail, although it may be stated that they all possess distinct morphological characteristics. The nuclear structure of each species is different, while *Entameba coli* forms cysts containing 8 daughter nuclei, this number being sometimes exceeded; *Entameba tetragena* cysts containing 4 daughter nuclei; while *Entameba histolytica* forms minute spores which are budded from the parent organism. In all of these species these differences in the method of reproduction have been very carefully studied and, in my opinion, constitute the most important basis of specific differentiation.

Cultivation.—Many authorities claim to have cultivated the parasitic amebæ of man and to have produced dysentery in animals with the cultures. Cunningham, Grassi, Kartulis, and Casagrandi and Barbagallo have all described cultures of amebæ supposed to be identical with those occurring in man, but the most important

and extensive work on this subject is that of Musgrave and Clegg[35], who were able to cultivate amebæ from the lesions of dysentery cases in symbiosis with pure cultures of bacteria, as well as from the pus of liver abscesses, and from outside sources such as water and fresh vegetables. With some of these cultures these authors believed they produced typical symptoms and lesions of dysentery in monkeys, and in one instance, in man.

In 1908, Walker[36] confirmed the work of Musgrave and Clegg as regards the possibility of cultivating amebæ in symbiosis with bacteria and obtained cultures of such organisms from the feces of man and from the intestine of animals. At this time Walker regarded these amebæ as identical with those parasitic in man, an opinion also held by Musgrave and Clegg in regard to their cultures.

In a more recent paper (1911) Williams[37] gives in detail the technic she employed in obtaining pure cultures of amebæ and considers the organisms in the cultures to be identical with parasitic amebæ. The technic given is a great improvement upon our former culture methods and with it she undoubtedly obtained pure culture of amebæ, but her descriptions of the organisms cultivated agree with those of Musgrave and Clegg, and Walker.

My own observations upon the cultivation of amebæ from the feces of dysentery patients have been most unsatisfactory, for although I have obtained cultures, in a few instances, the amebæ in the cultures did not agree either in morphology or life-cycle with those parasitic in man. I also have had the opportunity of studying many of Musgrave's cultures and those of other observers, and have never seen cultivated amebæ which I thought identical with the species observed either in health or disease in man, and for this reason I have always regarded it as very doubtful if any of the parasitic species have been cultivated. The same opinion has been held by several observers, notably Werner, Viereck, Couret[38], Braun[39], and Doflein[40], and that the opinion was justified has been recently proven by the work of Whitmore[41], and Walker[42].

In 1911, Whitmore[41] published two papers upon parasitic and free-living amebæ, the result of his work in Hartman's laboratory. His material consisted of cover-glass preparations from the stools of dysentery patients in Manila and Saigon, and from the stools of

healthy individuals, as well as cultures of amebæ from swamp water, pipe water, the stools of dysentery patients, and the pus of a liver abscess.

In the cover-glass preparations he found two species of parasitic amebæ which he identified as *Entameba coli* and *Entameba tetragena,* while in his cultures he found three species which differed both in their morphology and life-cycle from those he observed in the stools of man. He called special attention to the morphology of the nucleus and to the presence of a contractile vacuole in these cultural amebæ and also to the fact that the cysts contained but one nucleus. Regarding these forms he says: "All of my cultural amebæ were of the free-living type and have absolutely nothing in common with the amebæ which I have found in preparations from the stools of dysentery patients from Manila and Saigon."

"As my cultural amebæ are identical in type with those of Musgrave and Clegg (one of my cultures was given me by Mr. Clegg), and of Lesage, Walker, and Noc, I must come to the conclusion that all of these authors have described free-living amebæ which have nothing to do with the widely differing parasitic forms."

Walker[42], in a paper published in October, 1911, gives the results of a comparative study of the amebæ which he found in the Manila water supply, in the intestinal tract in healthy persons, and in patients suffering from amebic dysentery. This paper is special value because it reverses the opinion previously held by the author regarding the identity of cultural and parasitic amebæ. He examined 23 cultures of amebæ obtained from 25 samples of water in Manila and found two species present. He states that these amebæ were all of the free-living type, having a nucleus containing a large karyosome, a contractile vacuole, and a cystic stage containing a single nucleus. He also studied cultures of amebæ obtained from the stools of non-dysenteric cases and from patients suffering from dysentery, and found five well defined species. He concludes that these amebæ are also all *free-living* species belonging to the genus *Ameba,* and he says "the cultivable species are not parasitic in the intestinal tract of man; when obtained in cultures from the intestines they probably are derived from cysts of amebæ which have been ingested with water or food and have passed unchanged through the intestinal tract."

Walker not only examined cultures isolated by himself, but also one isolated by Musgrave and Clegg, in 1904, and states that all these cultures were free-living amebæ. As regards the possibility that they might be parasitic amebæ which had undergone certain modifications during cultivation, he very justly says "that while slight modifications might occur under such conditions, it is very improbable that cultivation could cause a complete reorganization of the structure of the nucleus, develop *de novo* such a constant organelle as a contractile vacuole or profoundly modify the life-cycle of the organisms. Moreover, that the supposed modification should invariably take the form of a change from the characters of the genus *Entameba* to those of the genus *Ameba,* is to say the least, improbable."

The observations of Whitmore and Walker, together with those of the other investigators mentioned, who failed to cultivate the parasitic amebæ found either in man or the lower animals, prove conclusively that there is no reliable evidence to date that any of the amebæ that have been cultivated from any source are identical with those parasitic in man. On the other hand, the evidence is incontrovertible that all cultivated amebæ so far described are free-living species belonging to the genus *Ameba* and have nothing to do with the production of dysentery.

It is not difficult to explain the occurrence of free-living amebæ in cultures made from feces, liver abscess pus, or from the intestine at autopsy, if one remembers that the cysts of these species are present in the atmosphere and may thus easily contaminate the cultural material. The recent observations of Liston[43] and Wells[44] prove that it is possible to secure cultures of free-living species of amebæ upon media exposed to the air, the organisms in such cultures agreeing in morphology with those obtained in cultures from the feces and intestine. Though it is possible for the free-living species to pass through the intestinal canal of animals in an encysted state and afterwards develop in cultures, it should be remembered that unless the most careful cultural technic is used such amebæ may contaminate the cultures from the atmosphere, and it is probable that this is the manner in which many cultures have been obtained, especially in regions where the free-living species are found abundantly.

All of the deductions founded upon the morphology and life-

history of cultural amebæ are erroneous as regards the parasitic species of man, and the observations which have proven that cultural amebæ are not identical with the parasitic species should teach us the fallacy of relying entirely upon cultural forms of protozoa in species differentiation.

The experiments of Musgrave and Clegg[35] and others, in which symptoms and lesions of dysentery were produced in monkeys by the use of cultural amebæ are explained, in the light of our recent knowledge, by the fact that these animals suffer naturally from amebic infection, as shown by Castellani[34], who describes a special pathogenic entameba as the cause of the disease in these animals, and by Greig and Wells[45], who found that every one of 53 monkeys with which they desired to experiment showed amebæ in the feces which resembled those found in man; these organisms only appeared at irregular intervals, so that repeated examinations were necessary in order to demonstrate them. Some of the animals presented symptoms of dysentery while under observation, while others appeared perfectly healthy.

It will thus be seen that conclusions regarding the production of dysentery in monkeys, unless most carefully controlled, should be accepted with great caution, and as the cultural amebæ are not pathogenic, all of the deductions based upon the production of dysentery by cultures of such amebæ in these animals must be considered as scientifically worthless.

It is also possible that some of the cultures used may have been contaminated with the cysts of parasitic amebæ capable of producing dysentery either in man, or animals, and it is therefore apparent that the results of the experiments upon monkeys are vitiated by the liability of these animals to naturally acquired amebic infection, and also by the possibility of the contamination of the cultures by the spores or cysts of parasitic amebæ, especially in tropical regions where amebic dysentery is endemic. The same criticism applies to the single experiment upon man, described by Musgrave, in which dysentery followed the ingestion of cultural amebæ. I have careully studied the cultural ameba used by Musgrave[11] in this experiment and have found that it is a typical free-living species entirely distinct in morphology and life-history from the entamebæ producing dysentery.

RELATION TO DISEASE.—At the present time it is generally accepted that certain species of entamebæ are capable of producing dysentery. However, a few authorities still maintain that these organisms are but secondary invaders of the tissues and are not directly responsible for the lesions present. In support of this contention they point to the fact that amebæ are found in a large proportion of healthy individuals and in those suffering from diseases other than dysentery; that direct infection with amebæ has never been proven; that the deductions based upon animal experiments are unsatisfactory, and that until we are able to cultivate the parasitic amebæ and produce dysentery with such cultures, we cannot say with surety that they are the cause of the disease.

These objections, with the exception of the last mentioned, can all be answered by the results of work accomplished during the past few years. We know that the presence of amebæ in health and in diseases other than dysentery is explained by the occurrence of a distinct species which is non-pathogenic and which is a parasite of man; that experiments upon animals *are* reliable when properly controlled, and that direct infection of susceptible animals has been abundantly proven. As regards the last objection, *i. e.*, that the organisms have not been cultivated, it may be said that this is not a fair or valid objection, as there are other parasites well known to be the cause of specific infections which have not as yet been cultivated.

In support of the causative relation of certain species of entamebæ to dysentery we have the following facts:

1. The absolutely characteristic pathology of amebic dysentery and the constant presence of the pathogenic species of entamebæ in the lesions and their absence from the lesions of other varieties of dysentery.

2. The constant presence of pathogenic entamebæ in the tissues of the peculiar form of abscess of the liver which complicates amebic dysentery.

3. The production of typical amebic dysentery in susceptible animals by feeding and inoculation experiments with material containing the pathogenic entamebæ.

It is not necessary at this time to discuss in detail the pathology of amebic infection. It is a self-evident fact to all who have had experience with amebic dysentery at the autopsy table that the

lesions of this disease are absolutely characteristic and are entirely distinct from those of the bacillary forms of the disease. I have had the opportunity of studying hundreds of cases of both amebic and bacillary dysentery at autopsy, and can state that one may easily distinguished the lesions produced by the entamebæ from those due to other causes.

If sections are made through the lesions in the intestine, entamebæ may be demonstrated in every portion of the involved region. They are frequently numerous in the mucous, sub-mucous, and muscular coats of the intestine, where they may be demonstrated in the glandular tissue, in the intermuscular septa, and in the lymphatics and blood-vessels. It is a significant fact that they are generally surrounded by a round-celled infiltration indicating their irritative effect upon the tissues. Of course, in the intestine, it cannot be denied that a portion of the pathological picture may be due to bacteria which have gained entrance to the tissues along with the entamebæ, but the fact remains that the latter organisms are always associated with a characteristic ulcerative lesion never produced by bacteria alone.

I believe that if we had no other evidence than the peculiar lesions of this form of dysentery with which are always associated the pathogenic species of entamebæ we would be justified in considering the latter as the cause of the disease.

It is well known that a peculiar form of liver abscess frequently complicates amebic dysentery. The pathology of this condition is characteristic and in the contents of such abscesses entamebæ can always be demonstrated and if sections are made of the abscess wall these organisms are found within the tissues. Frequently the abscess contents are sterile save for the entamebæ, while the most careful staining of the tissues fails to reveal any other etiological factor.

The experimental production of dysentery in animals dates back almost to the discovery of the parasitic amebæ. Loesch[1] produced the disease in a dog by the rectal injection of fecal material containing amebæ and his experiment was repeated successfully upon cats by Hlava [3], Kovacs [46], Kartulis [2], Zancoral [47], Strong and Musgrave[10], and others. Kruse and Pasquale[7] produced the disease in cats with the pus from an amebic liver abscess, while

Harris[9] produced the disease in four puppies by fecal material containing amebæ, two of the animals developing liver abscess in which the amebæ occurred in pure culture. The latter observer controlled his work by the inoculation of cultures of all bacteria occurring in the fecal material injected and found that none of them produced the lesions of amebic dysentery.

All of the experimental work cited, while conclusive as to the production of dysentery in animals with material containing amebæ, was inconclusive as regards the exact species concerned, as the researches were made before Schaudinn's work in species differentiation. Since his observations numerous investigators have proven that *Entameba coli* is not a pathogenic organism and that *Entameba histolytica* and *Entameba tetragena* are the species most frequently concerned in the etiology of amebic dysentery.

As has been stated, *Entameba coli* is a species frequently observed in the feces in both health and disease. Its geographical distribution is probably world-wide and the percentage of infections with it varies greatly in different localities. Schaudinn[13] found it present in 50% of healthy individuals in West Prussia; in 20% in Berlin, and in 66% of healthy people examined on the shores of the Adriatic Sea; Vedder[48], in 50% of healthy American soldiers, and 72% of Filipino scouts in the Philippines; Sistrunk[49], in 11 of 145 patients suffering from diseases other than dysentery in the Mayo Hospital at Rochester, Minn., the patients coming from different parts of the United States; and Ashburn and the writer[50] in 71% of healthy American soldiers in Manila. In 1905 I examined over 200 American soldiers in San Francisco, who were recruited from different parts of the United States, and found that 65% of them showed *Entameba coli* in the stools after a saline cathartic. This species has lately been demonstrated by Stiles in North Carolina, by McCarrison in India, and by Whitmore and Walker in the Philippines. It has also been found upon the Isthmus of Panama by Darling and James, and in South America by Elmassian.

The evidence proving that this organism is not pathogenic is conclusive. Its common occurrence in healthy individuals, in whom it has been observed for months and even years without producing symptoms of diarrhea or dysentery, and the negative

result of animal experiments definitely prove that this species is a harmless commensal in the human intestine. Kartulis was unable to produce dysentery in kittens with the amebæ observed in the feces of healthy individuals. The same negative results were obtained by Kruse and Pasquale, Celli and Fiocca, Strong and Musgrave, Kovacs, Jürgens and Schaudinn. The latter observer found that while *Entameba coli* was capable of living in the intestines of cats, it never produced symptoms of diarrhea or dysentery in these animals.

I have made many attempts to produce dysentery in kittens with *Entameba coli,* both by injecting fecal material containing them into the rectum and by feeding material containing multitudes of both encysted and motile forms, and in not a single instance were symptoms or lesions of dysentery produced.

On the other hand, the evidence is just as conclusive that *Entameba histolytica* and *Entameba tetragena* are able to produce dysentery in animals. Schaudinn[13] proved by feeding experiments that only the spores of *Entameba histolytica* are capable of causing dysentery in kittens. By repeated washing of fecal material containing these spores he isolated them and found that kittens fed with milk containing the spores developed typical symptoms and lesions of amebic dysentery.

In my own work upon this subject[14] I used fecal material containing both the spores and vegetative forms of *Entameba histolytica.* Half-grown kittens were selected and 50% of those given rectal injections developed the disease, while 66% of the feeding experiments were successful. It will be noted that the latter method gave the best results, as 8 of the 12 kittens experimented with developed dysentery, *Entameba hstolytica* being found in the feces and in sections of the diseased intestine. One of the animals developed an amebic abscess of the liver and this species of entameba was found in the abscess contents as well as in sections of the abscess wall. The period of incubation varied from 6 to 14 days, being slightly shorter in the feeding experiments than after rectal injection.

All the kittens experimented upon were carefully examined for amebæ prior to the experiments so as to rule out a previous infection. Both pure and mixed cultures of all bacteria that could

be cultivated from the feces were fed and injected in order to control the tests and in none of the kittens so treated did symptoms of diarrhea or dysentery develop and at autopsy no lesions were found in the intestine.

Werner[18] has repeated these experiments at Hamburg and found that with this species he could produce dysentery in cats, the incubation period varying from 4 to 13 days. Of 5 cats infected, 4 died and at autopsy lesions which were typical of amebic dysentery were found. He proved that guinea-pigs and rats were resistant to infection with this parasite.

From the evidence which has accumulated I believe that it is impossible to conclude otherwise than that *Entameba histolytica* is the cause of a form of dysentery. The lesions in experimentally infected animals are exactly similar to those occurring in amebic dysentery in man, and the constant association of the parasite with these lesions furnishes conclusive proof of the relationship of the parasite to the disease.

As regards *Entameba tetragena,* the experiments of Viereck[16], Hartman [23], and Werner [18] prove that this species also produces a form of amebic dysentery, although Hartman considers that it is not as pathogenic for cats as is *Entameba histolytica.* In his experiments the incubation period varied between 8 and 10 days and the infection lasted from 3 weeks to a month. At autopsy the animals presented the typical lesions of amebic dysentery as observed in man.

Werner experimented with 5 strains of *Entameba tetragena,* only three of which he found to be pathogenic. The incubation period in his animals varied from 5 to 12 days and the disease lasted from 8 to 25 days. He states that he did not find any marked differences between the lesions produced by *tetragena* and *histolytica,* and does not believe that one is less pathogenic than the other. In one of his animals an abscess of the liver developed which contained amebæ of the *tetragena* type.

A very interesting experiment with this species has recently been reported by Franchini[51]. He was able to produce dysentery in a monkey by rectal injections of fecal material containing *Entameba tetragena.* The monkey had been under observation in the laboratory for over a year, was perfectly healthy, and repeated examina-

tion of the feces before the experiment showed them to be free from amebæ. After the rectal injection of material containing *Entameba tetragena* the animal developed an intense dysentery, the stools containing blood, mucus, and multitudes of amebæ identical in morphology with those injected. The animal died from the infection and at autopsy ulcers were found in the large intestine and *Entameba tetragena* was found in sections of the diseased tissues.

I have had no personal experience with the experimental production of dysentery in animals with this species, but I consider the evidence sufficient to prove that it is capable of causing the disease in susceptible animals and that it is a very frequent cause of dysentery in man.

Conclusion.—In the recent development of our knowledge relating to the parasitic amebæ of man certain facts have been discovered which are of much importance to the physician. It has now been demonstrated that there occur in man at least three species of entamebæ, two of them causing the disease we know as amebic dysentery, while one, a harmless parasite, is frequently found in healthy individuals and in those suffering from other diseases. In practice this fact is of the very greatest importance, for we now know that a diagnosis of amebic dysentery based upon finding amebæ in the stools is not justifiable unless the species of ameba present be determined. When one remembers that in the tropics and sub-tropics at least from 30 to 50% of healthy individuals show the harmless *Entameba coli* in the feces, the importance of recognizing this parasite before making a diagnosis of amebic dysentery is at once apparent. Unfortunately it is often impossible for the practitioner to make a differentiation between the harmless *Entameba coli* and the pathogenic species, but in most localities the material can be submitted to some one who is qualified to make such a differentiation, and when such facilities are available the physician is derelict in his duty if he does not avail himself of them. However, any physician who desires to do so may become familiar with the morphology of *Entameba coli* by studying the amebæ found in the stools of healthy individuals after the administration of a saline cathartic.

Another practical deduction to be drawn from the work which

has been done upon cultural amebæ is that amebic dysentery is due to strictly parasitic species and that in order to avoid spreading the infection it is necessary that the feces of dysenteric patients be disinfected. This measure is very frequently neglected, and thus infection is spread by the encysted stages of the entamebæ reaching food and water.

Further observations may add still other pathogenic species of entamebæ to those already known or may result in reducing their number, but it is already proven that both harmless and pathogenic species exist, that they are strictly parasitic and have not been cultivated, and that the pathogenic species which are parasitic in man are the cause of amebic dysentery.

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The Tonsils and the General Health.*

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The importance of examining the tonsils in inflammatory conditions of the throat is now well recognized by physicians in general, but their relation to other organs and the general health is not so well understood. To some extent, however, this relationship is receiving consideration, and in cervical lymphadenitis, for instance, the well-informed physician will not fail to examine the tonsils, and occasionally also cases of articular rheumatism are referred to the laryngologist for a report on the condition of the tonsils.

Located in the rear of the buccal cavity, at the union of the respiratory and digestive tracts, the tonsils occupy a most exposed

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position. They are composed of an aggregation of lymphatic nodules, the lymphoid tissue being very similar to true lymphatic glands, having sinuses, however, instead of ducts through which the circulation is carried. The tonsils may, therefore, be considered as practically a part of the lymphatic system.

The tonsils are lined on their buccal surface by columnar epithelium, these changing to squamous in the lower part of the crypts. The epithelium of the crypts has numerous defects, which Stoehr claims are physiologic and intended for the transmigration of lymphocytes.

The function of the normal tonsil is still a subject of discussion, although it is generally admitted that it is capable of a certain amount of absorption, and that it may, to some extent, arrest and destroy pathogenic microorganisms. An amylolytic function has also been ascribed to the tonsil, but this property of converting starch into sugar is probably due to the absorption of saliva, which possesses this property. More recently Bordley claims that the tonsils, in early infancy, act as governors over the system of ductless glands, secreting a substance which regulates the ratio of polymorphonuclear and mononuclear blood cells.

Massini, in the *Gazette Hebd. de Med. et de Chir.*, believes that the function of the tonsil is to furnish an internal secretion capable of causing increase of arterial pressure. He found that the subcutaneous administration to guinea pigs of the extract of the tonsils had a noticeable effect in increasing the arterial pressure, and in a manner somewhat similar to that following the use of suprarenal extract. Chronically inflamed tonsils were found to have no such effect.

While, therefore, the healthy tonsils no doubt possess certain functions in the organism, this is probably easily compensated for, as there is no clinical evidence to show that the removal of even the healthy tonsil has an injurious effect on the system.

The importance of the tonsils in their relation to the general health is due to the fact that the lymphatic vessels of the tonsils anastomose freely with the adjoining lymphatics, and empty into the chain of cervical glands, and thence into the thoracic duct. In this way, infection of the tonsil may be distributed to all parts of the system.

The normal tonsil may vary considerably within the limits of

health, variations of growth and arrested development being due to complex development in embryonic life as well as in the process of growth to maturity.

The hypertrophied tonsil may be of large size, globular in shape and free and hard to touch (fibrous), or of similar dimensions, but soft (adenoid). It may also be flat and elongated, so as to be inconspicuous, or it may lie between the faucial pillars to which it is attached, so that, in spite of its hypertrophy, it may appear small in size. On account of its adhesions, however, which impair its drainage, the last described tonsil is especially prone to infection.

Large tonsils may cause considerable obstruction to deglutition, and also to respiration, especially when we remember that hypertrophied tonsils are usually associated with adenoids.

In such cases, the child may become a mouth-breather, and the air, deprived of the warming, moistening and cleansing function of the nostrils, irritates the lower respiratory passages, which may be aggravated by actual difficulty of breathing. The crypts of such tonsils are usually filled with decomposing masses and various germs, and these, being pressed out during deglutition, tend to develop ferments, which disturbs the gastric function, and therefore the digestion. This explains the remarkable improvement in weight and nutrition after tonsillectomy in such cases.

When the cervical or sublingual lymphatic glands become enlarged or inflamed, a careful examination of the tonsil is indicated, as pyogenic infection from the tonsil is the most common cause. In uncomplicated cases, enucleation of the tonsils is followed by disappearance of the cervical adenitis. Where this is not the case, it indicates that a tuberculous process has probably been added to the pyogenic infection. Even such cases improve after tonsillectomy, but more slowly and imperfectly.

The bacteriology of the tonsils has been the subject of much careful investigation. The pneumomoccus is found most frequently on the surface of the tonsil, while the streptococcus is almost invariably found in the crypts, and not infrequently the staphylococcus. While these bacteria, under favorable conditions, seem to be inert, they may easily be stimulated to virulent activity by a slight inflammatory process. This may develop in the tonsil itself, or it may become infected from the nasal cavities, mouth or pharynx, thus tending to develop disease not only in the tonsillar

tissue, but also, by means of its anastamosing lymphatics, in other parts of the body.

Diphtheria is a typical example of a tonsillar infection producing secondary infection of the organism. Although this disease may originate in different places, the most frequent location of the initial diphtheritic lesion is on the tonsil. While an attack of diphtheritic tonsillitis is not necessarily limited to unhealthy tonsils, still my observation has been that such tonsils form a *locus minoris resistentiæ,* and are, therefore, more prone to diphtheritic infection.

In this connection, an interesting report is made by D. J. Davis, who, in a case of recurrent tonsillitis, made cultures from the *crypts* of the tonsils which gave an almost pure growth of the diphtheria bacillus, while cultures from the *surface* of the tonsils, taken before and after the excision, did not reveal this organism. This was, therefore, a case of diphtheria-carrier, whose existence could not be determined by the usual methods of taking cultures from the surface. Such cases may explain outbreaks of diphtheria whose origin it is difficult to explain.

Tuberculous infection may originate in the tonsils and pass through the lymphatics of the deep cervical chain into the thoracic duct, and thence into the pulmonary lymphatics. Tuberculosis of the tonsil may be primary or secondary. The former is rare, and is due to the inhalation of tubercle bacilli or the ingestion of tuberculous food. It is exceedingly difficult to detect, as it cannot be diagnosed by a physical examination. The microscope, however, shows the tubercle bacilli usually associated with giant cells and tubercles. In uncomplicated cases, the extirpation of the tonsil is indicated.

The secondary form of tuberculosis of the tonsil is of frequent occurrence, and is usually associated with other lesions and ulceration and marked anemia of the adjoining parts. The diagnosis is simple, and is facilitated by the accompanying hectic fever and pulmonary changes. Operation in such cases is contraindicated, treatment being restricted to local applications for the relief of pain and the healing ulcerations.

As to the frequency of tuberculous infection of the tonsils, Baup gives a table of 841 tonsils examined by different investigators, with a total of 53 tuberculous tonsils, or about 6 per cent. While

some of these individuals may have been otherwise tuberculous, it indicates that tuberculous infection of the tonsils is more common than is generally supposed.

Among inflammatory processes of the tonsil, which cause marked constitutional disturbances, are peritonsillar abscesses or quinsy. In such cases the fever may reach as high as 104° to 106° F., the pain being of the most distressing character. These abscess cavities should be drained as soon as pus is found. The common practice of allowing them to open spontaneously not only prolongs the pain and distress of the patient, but endangers his life. The pressure of the inflammatory process may produce necrosis of the external carotid or it may cause thrombosis of the internal jugular. In a recent case in this city, in which the natural opening of the abscess was patiently awaited, the patient suddenly sat up during the night with evidence of suffocation, and died before the physician could be summoned. The abscess had burrowed its way downward, the pus opening into the trachea and producing asphyxiation.

Tonsils which have been affected with peritonsillar abscess should be removed when the patient has recovered from the effect of the attack. Such tonsils become a mass of cicatricial tissue, resulting from the abscess formation, and form a nucleus for general infection and recurrence of the abscess.

Many cases of nephritis consecutive to tonsillar infection have been reported, these being usually due to the location and development of the diplococci of Fraenkel. In such cases there is an interval of variable duration between the tosillitis and the development of the nephritis, this interval being marked by *malaise,* weakness and general depression. In a case reported by Baduel in the *Revue Hebd. de Laryng. d'Otol. et de Rhinologie,* the interval was very long, and the quiet and the clinical signs led to the supposition of general typhoid infection. A bacteriologic examination, however, showed virulent diplococci of Fraenkel in the urine and blood.

Acute articular rheumatism, as a complication of tonsillar inflammation, is now generally admitted, and the association is frequently noticed by the patients themselves. In forty-three cases of pseudomembranous inflammation of the tonsils reported by Karagueosiantz, there were five complications of acute articular rheumatism and one of pleuritis.

Endocarditis and pericarditis complicating tonsillitis is occasionally observed, cases having been reported by Brown, Packard and others. In investigating this subject, F. Mayer found that animals injected with the bacterial flora of the tonsils produced a local infiltration and necrosis, but no suppuration. After six days there developed inflammation of various joints, with a serous or sero-purulent exudate, with pleurisy, pericarditis and endocarditis.

A condition which may form a serious menace to the health of the patient, but which is sometimes most difficult to diagnose, is pus in the interior of the tonsil. Such a case is reported by F. Jansen, of Hamburg, in the *Munchener Med. Woch.,* the history being as follows: A woman of twenty-eight was admitted into the hospital as a case of typhoid, but the Widal's reaction proved negative. She died in twelve hours, the diagnosis being septicemia and uremia. A *post-mortem* showed numerous small hemorrhages in the pleura, slight hypostasis in the lungs, numerous ecchymoses in the pericardium, and small abscesses in the heart, with recent ulceration on the valves, the kidneys containing numerous small abscesses. The tonsils were smooth on the surface, but, on section, thickened abscesses were found on both sides. The older appearance of the suppurative processes in the tonsils proved them to to be the cause of general pyemia. While the patient was under observation there was no external exudation on the tonsils.

The above case may appear rare, but it is probable that such cases are not unusual, and that the etiologic relation of the general infection to the diseased tonsil is not more frequently observed. A similar case of abscessed tonsil came under my observation about two months ago. The patient, a young woman of twenty-eight, had been suffering for six months from anemia and general depression and slight fevers, the condition generally indicating incipient tuberculosis, but the most careful examination failing to reveal any pulmonary disease. As the patient complained of cheesy deposits in the tonsils, and all other treatment being without benefit, the case was referred to me. The tonsils were found without signs of hypertrophy, but there were several crypts on each side which were filled with caseous debris, the occasional discharge of which annoyed the patient. Clinically, the patient presented a common form of the tonsils with diseased crypts.

Believing that the absorption from these caseous masses might

have a depressing influence in this case, and as the patient was annoyed by the cheesy excretions, tonsillectomy was advised. A few days afterwards Dr. Waide and I operated on the case under general anesthesia at the Hotel Dieu. In removing the left tonsil the knife entered a pus cavity just within the capsule, and about a dram of thick, grey pus was discharged into the throat. The patient made a good recovery, with no further recurrence of fever, and at once improved in weight.

The important point in this case is that there was a cold abscess, which gave rise to no pain whatsoever, and no clinical evidence of being otherwise than an ordinary case of tonsil with caseous crypts. Its possibilities, however, for general infection, as described in Jansen's case, can easily be understood.

An unusual type of tonsillitis became prevalent in Baltimore last January, which presented many complications of adenitis, peritonitis and septicemia. It differed from the ordinary streptostaphyloccic variety, the inference being that the cause was the pneumococci which were found present in the abscesses, glands and in the infected tonsils.

In forty-three of these cases, studied clinically and by bacteriologic methods, collated by L. K. Hirschberg in the *Journal of the A. M. A.* (April 20, 1912), the following were among the complications which occurred. Ten suffered with a remittent rise of temperature for two weeks or more; one was operated on forty-eight hours after onset for appendicitis; one died of peritonitis, and one of septicemia; three were affected with arthritis in elbow, intercostal and shoulder joints, and six had bronchitis, with abortive throat signs. Even in the cases which presented no complications the type of the disease was of a severe character.

When the tonsil has become diseased so that, instead of being an organ of defense, it becomes a source of infection and a menace to health, it should be removed. Destroying the crypts by means of electric or chemical cauteries is not only ineffective, but may aggravate the evil by causing cicatricial closing of the openings of the crypts, thus blocking drainage and increasing the danger of systemic infection. Simply cutting the tonsils, as in tonsillectomy, is also unsuccessful, as the larger portion of the unhealthy crypts remains, and the cicatricial contraction of the opening makes it more difficult

for the crypts to drain. Complete removal only in such a case gives permanent relief.

No method of enucleating the tonsil is adapted to all cases. The Sluder operation is more quickly performed than other methods, but is adapted only to a certain percentage of cases. The removal by blunt dissection, by cutting instruments, or by scissors and snares, is usually a question of personal preference, and in many cases a combined method must be resorted to for a complete result.

Conservatism here, as in general surgery, should be carefully observed, as the operation of tonsillectomy, even in expert hands, is not devoid of danger. An occasional attack of tonsillitis does not necessarily indicate the removal of the tonsil. On the other hand, the tonsil should be kept in mind as a source of infection to other parts of the body. Should the tonsil become chronically diseased, and a culture ground for the development of pathogenic germs, not only producing an unhealthy condition of the throat, but menacing the general health, and serious, and even fatal, disease to distant organs, then prompt and thorough enucleation is indicated, and in such cases the results are usually most gratifying.

What the General Practitioner Should Know About the Nose*.

By P. J. O'KELLEY, M. D., New Orleans.

The shortness of the time for preparing the following notes has prevented me from looking up any literature bearing upon the subsubject. I have therefore decided to jot down a few practical suggestions, which do not cover the entire subject by any means.

First of all, the general practitioner should have a definite knowledge of anatomy of the nose, remembering that there is a septum dividing the nose into the two nares, each with a definite function, and that on the outer wall of each are the three turbinated bones covered with mucous membrane which swells from inflammatory conditions, completely blocking the nares. In the middle meatus of each nostril (the space between the middle and inferior turbinated bones) are the openings of the frontal sinus, anterior ethmoidal cells and the maxillary antrum. In the inferior meatus is the opening of the tear duct, pressure on which by diseased membranes or growths can easily occlude it and cause the tears to flow over the cheek.

* Read before the Orleans Parish Medical Society, May 13, 1912.

Opening in the superior meatus are the posterior ethmoidal cells and the sphenoidal sinus.

We must also remember that the function of the nose is for smell and to warm, moisten and purify the air we inhale; and that the upper third of the nose is the region of smell and the lower two-thirds are for respiration.

Deformities of the septum, such as deviations and cartilaginous and bony outgrowths should be recognised.

If the general practitioner is consulted for some nasal condition and on examination finds a creamy looking discharge between the middle and lower turbinates, he should be reasonably sure that he has an abscess condition in the frontal sinus, antrum maxillare or suppurating anterior ethmoidal cells, or all three cavities may be involved in the same individual at the same time. A previous history of grip, repeated colds or any of the acute infectious diseases accompanied by headache either localised or general, with or without a history of pus discharged from the nose, and with or without tenderness over the suspected cavity, should at once direct his attention to the fact that one of the accessory cavities is causing trouble.

The sphenoidal sinus is the seat of much annoyance and discomfort and, because of its inaccessibility, it being impossible to get at it in the majority of cases without removal of the middle turbinate, diseased conditions in it very often escape the notice of the general practicioner, as well as of some of the rhinologists. A history of persistant headaches which have not been relieved by the gynecologist, internist, oculist, or neurologist or a history of incessant dropping into the throat of a bad tasting and bad smelling discharge which is not benefitted by the usual cleansing solutions will frequently indicate trouble in the sphenoidal sinus. Right here I might mention the danger to the ears of ordering sprays, douches and solutions for syringing the nose, without carefully telling the patient of it, as we know only too well of numerous acute middle ear inflammations, not to mention abscesses and perhaps mastoid complications, resulting therefrom. They must be instructed whenever it is necessary to order any of the above for treatment of the nose, to be sure to hold the head well forward and down immediately after using the spray, douche or syringe, to get rid of the excess solution before blowing the nose, which must be

gently done, using pressure only on one side at a time until it is free, and not blow first one side and then the other repeatedly and rapidly as is so often done by patients.

If the floor of the nose is covered with a thick muco-purulent or membranous discharge which extends upward over a part or all of the inferior turbinate, especially if the accumulation is not easily dislodged, he may be dealing with a foreign body or membranous rhinitis, diphtheritic or simple. Atrophic rhinitis and ozena should be easily recognised by the shrunken condition of the membranes and the scabby accumulations and odor.

Epistaxis is a condition for which the family physician is very often consulted. Except when traumatic or due to some systemic disturbance, the large majority of nose bleeds come from just within the nasal cavity, from a spot on the septum, so that a pledget of cotton large enough to fit the nares tight and introduced into the nose with pressure applied externally will soon check the flow.

Before closing these remarks, I would like to enter a protest against referring to all nasal troubles as CATARRH, a term which in itself means nothing but a flowing down and which is abused beyond all reason. Get in the habit of referring to conditions by their proper terms and let us try to abolish or at any rate lessen the use of this word as much as possible; a word which is applied to anything in the nose from an acute rhinitis to ozena, acute or chronic sinusitis, or even to a case of screw worms which came under my observation a few years ago.

The Role of the Ear as a Complication to General Manifestations of Disease.*

By R. C. LYNCH, M. D., New Orleans.

The abortive treatment of mastoiditis would be of no special interest to most of you, so I have tabulated some thoughts on the role of the ear as a complication to general manifestations of disease, reminding us in this way of the interdependence of all branches of medicine and surgery, and dividing my subject into broad classes, viz: the complications that occur as a result of the acute infectious diseases, and those that accompany the more chronic forms of infection.

I should remind you that infected material is carried to the ear by its forceful entrance through the Eustachian tube, by contiguity of

* Read before the Orleans Parish Medical Society, May 13, 1912.

tissue, by the lymphatics, and blood stream. The Eustachian tube is nearly straight in children, is rather large in proportion to the adult. The lymphatic system is at the height of its activity, and the nose is more or less undeveloped. You will understand why it is so important to expect this complication in the acute infectious diseases, especially in children.

Stuffiness in the ears, headache, increasing restlessness, deafness, tinnitis, an ascending temperature curve even to the production of convulsions, and ear ache of varying intensity is a symptom syndrome which is not especiall new to any one of you, in scarlet fever, measles, diphtheria, pneumonia, grippe and the gastro-intestinal inflammations.

I caution you, however, to pay more attention to the milder of these symptoms, namely, stuffiness, slight deafness, mild intermittent earache, and very slight temperature as representing a pathology upon which not much stress is laid. In the mild attacks of the acute infectious diseases these symptoms often prevail without much comment from family or much attention from physician; they mean a mild type of otitis media, due to gradual Eustachian obstruction, slight transudation of serum and increase secretion of mucus, with probably no drum perforation. If arrested at this stage the exudate will organize, adhesions will form and the foundation will be laid for an hyperplastic otitis with adhesions, and a functional incapacity of the organ affected.

If not arrested there will be gradual distention of the tympanic cavity, probably with a thickened drum, which will resist perforation, for a sufficient length of time to allow this infecting material to find its way into the mastoid cells with the production of an acute mastoiditis. Should the drum rupture under the continuation of the infection, the organ will always be a point of least resistance for recurrence of the trouble, especially if the perforation be permanent.

We meet with some instances during the acute infectious diseases, where though there is no evidence of middle ear involvement, the patient becomes suddenly or progressively deaf, due, no doubt, to the selective action of the particular toxin on the nerve of hearing either in the brain along its trunk or at its terminal endings. Mumps show this selective action, by far, more frequently than the other diseases.

In general, I may say that any change within the viscera that

produces a disturbance referable to the ear does so because of its effect upon the general venous circulation. The damming back of the return currents from the ear leads to a dilatation of the small veins especially in the labyrinth, and there produces congestion, favoring there the many varied complications that occur.

Unfortunately, the symptom syndrom of such as nephritis, diabetes, the anemias, syphilis, tuberculosis and malaria is not so thoroughly developed as in the acute infectious diseases. This can only be developed by the close association of surgeon, internist and aurist.

I would call your attention to those symptoms which most frequently are met with by the aurist and hope the discussion may add those that may complete the complex of some of the different conditions enumerated.

We would rather blame either the blood stream or lymphatics as the more usual road of infection in these conditions characterized by their gradual onset and slow progress. While we would expect and probably look for some definate middle ear pathology, we must learn that the internal ear more probably bears the brunt of these changes with the result of a type of complication that is extremely annoying and discomforting to the patient, least recognized and considered by the general practitioner and most serious to the aurist, for it is the type of change with which we can do least unless assisted materially by the internist.

Early in nephritis may we see hemorrhagic infiltration into the tympanic mucous membrane with progressive deafness and tinnitis, due probably to an edema of the nerve sheath, vertigo arising from the degeneration of the terminal nerve filaments and the failure to recognize the high tones. This train of symptoms are almost as characteristic as albuminuric retinitis.

In a patient whose drum is normal or rather pale, who has diminished hearing to watch or acumeter sounds, though the voice is heard, but who is slow to repeat what has been heard, whose upper tone limit is slightly lowered and whose tone conduction is below normal—in such a case with tinnitis of high pitch (as birds singing) and who is anemic—one would probably find by blood examination the specific cause of the trouble.

Early aural symptoms appear frequently in myxedema. A progressive loss of hearing with marked tinnitis, some vertigo, nervous irritability, tympanic cavity either red or filled with serous effusion,

no pain associated with general evidences of edema or thickening and a dull cerebrum would be very suspicious of this state of affairs, and can be easily relieved by the appropriate remedies.

While we do see associated with diabetes an evidence of nerve involvement, we have to deal here more with those skin manifestations of this condition. Recurring furuncles in the external auditory canal with the intractible itching of the meatus would make one suspicious—have you realized what a serious complication an otitis media is to this? In this condition, with a background of tissue which is so prone to extensive necrosis, we have to deal with one of the most formidable states one can imagine. Volumes are written as to whether or not to operate with the balance swinging to the operative side, especially where our interest can by diet and medication keep the diabetes under temporary control.

Gout and rheumatism play their destructive part in the ear as elsewhere. Nerve, middle ear, and external auditory canal are all recipients of the changes and deposits. Acute ossicular arthritis gives rise to pain out of all proportion to the local manifestation of the disease. Sudden hemorrhages into the labyrinth as a result of arterial changes are frequent and produce profound and lasting deafness.

In typhoid fever, tinnitis, deafness, with no pain must mean the action of the specific toxins on the nerve, for this clears up during convalescence as a rule, but the otitis media occurring at the end of the diseases is a most destructive lesion, rather active in its onset and steadily progressive in its course. The otitis continues destroying tissue and bone at random unless immediate measures are taken to put the process under control.

So insidious in its onset and utterly void of symptoms, so undermining in its extension and having no regard for boundaries, or importance of structures involved, aural tuberculosis usually makes itself known by a running ear, even perforation of the drum in two places may occur. Its steady destruction in spite of treatment is as elsewhere throughout the body. All ears that run for no provocation, and continue to do so in spite of our best efforts, in a patient not otherwise strong, would make us all suspicious that the infernal tubercle bacillus is at work with some of his assistants, tearing down the very foundation of an organ, the use of which we enjoy so much and upon which so much of our welfare depends.

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The Relation of the Physician to the Public.

By R. O. Simmons, M. D., Alexandria, La.

The multiplicity of duties of the busy practitioner often forbids the continuous application required for the collection and elaboration of data which an occasion like this so richly deserves. I trust, therefore, you will pardon whatever of lack of connection may appear in what I shall present this evening.

Medical men who meet in the forum of medical societies and engage in scientific discussions and interchange of clinical experience are thereby better equipped for the discharge of the grave and responsible duties of their high calling. To the general public, however, the papers read and the discussion following are not edifying, since they are necessarily interspersed with scientific terms with which few laymen are familiar.

Under our republican form of government, with free press, and freedom of speech and act in religion, a goodly number of laymen have attained to considerable erudition in theology and also to high degrees in spiritual life. And in the legal profession a still larger number of the laity have acquired considerable practical knowledge in law matters by contact with members of that profession in conducting cases of litigation and also by informing themselves in regard to legislative enactments with which the law of the land presumes the masses of the people to be acquainted. Not so, however, with medicine, the other of the liberal professions, knowledge of which until recent years being confined almost exclusively to its own members.

The field of scientific knowledge and investigation of the medical profession lies far out beyond the acquaintance of the great masses of the people even of the most advanced civilization. And herein lies one of the greatest hindrances that we have to encounter in

* President's Address, read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, April 23-25, 1912.

our efforts toward the betterment of the general health conditions among the people. Although fully appreciating the able and valuable discussions to which we have listened as physicians and scientific men, I would seek, in this address, to depart from the usual forms of technical and scientific discussion, and speak in the common vernacular of the layman. The mutual relation of the profession and the masses brings a mutual obligation, and there is an ever growing demand for a better understanding between them.

The medical profession exists not for its own sake, but for the common good of the people. The sufferings and the needs of humanity called it into existence. The relation, therefore, between the medical profession and the public is a very important one; and there are so many things that are misunderstood by the people, things that should be explained and that must be better understood by the masses, before the profession can hope to accomplish its greatest possible good, I have therefore chosen as my subject,

THE RELATION OF THE PHYSICIAN TO THE PUBLIC.—Like all worthy professions, that of medicine has its own peculiar code of ethics, and the reputable physician who is worthy of public confidence and patronage bases his career as a practitioner upon what the profession believes to be its ethical or moral obligations to humanity which it would seek to serve. The doctor, in no small sense, is a public man and therefore a public servant. As "guardians of the health and lives of the people," it is but just that the profession stand for every thing that is right and uplifting to the community. And an enlightened public should know, and we believe does know, that the legitimately recognized profession of medicine does stand for the highest ideals of life and the truest moral standards among the people.

The ethical demands of the public upon our profession are fully justified. The close vital contact of the physician with the deepest and most sacred relations of life, a contact in which he is the master in charge, lays upon him the greatest moral obligation to the welfare of the race at large. The conscientious physician is more than even the public is aware, the conservator of public morals. To him is committed the most sacred secrecies of private life, both of the individual and of the home. In some respects the physician enters into a deeper acquaintance with the real con-

ditions of the people than the man in the ministry. The minister can touch the higher spiritual conditions of the people, but in the realm of common morals among the people at large the physician occupies no insignificant position and responsibility; indeed, his close and vital contact with the masses in the deepest facts of life renders him a most important factor in the common welfare of our civilization. And as we have already intimated, the ethical demands of the public upon us are just because of the ignorance and helplessness of the masses, regarding all matters appertaining to the medical profession. Some one has facetiously remarked "that the world loves to be humbugged." The humbug and the quack are very much in evidence everywhere; and the serious fact is, they are nowhere so well protected and so well enabled to do their mischievous work at great reward as they are under the cover of the profession that legitimately assumes to care for the health and physical welfare of the people. Here, because of the lack of correct information and the consequent helplessness of the masses, is found the paradise for the quack and patent medicine spieler now "feeding like vampires" upon the lives of the afflicted and the suffering. All this further intensifies the moral obligation upon the medical profession toward the public. It must in all serious honesty guard with jealous care the sacred responsibility committed to its hands; and by continued research into the realms of scientific truth, and by the wisest and most vigorous application of discovered facts to the needs of the world, and by a constant dissemination of scientific knowledge among the people, drive the false pretender and quack, the numerous parasitic fads of the day, and the patent medicine abuses, from the field, and deliver suffering humanity from their ravages.

And furthermore, while speaking here, it is well to remark that the obligation is upon us; that we, as a profession, standing for all the facts of scientific truth, should come into closer co-operation with the educational institutions of our country, and contribute a larger part toward the proper enlightenment of the masses in all matters pertaining to the common physical health and welfare of the people. The praiseworthy work being done in our public schools in teaching the subjects of anatomy, physiology and hygiene, and the effects of alcohol and narcotics upon the human system, is preparing the foundation for a much larger work of enlightenment

of the people under the direction of the medical profession. The time has come when the profession should come into closer relations with the public intelligence and confidence, and should inaugurate yet fuller methods of instruction for all the people. The educational work of the State Board of Health should be followed up in every parish under the leadership of the medical organizations of the parishes. Unless the profession assume the attitude of teacher and seek to bring the public into possession of real scientific information, which can be disclosed alone in the field of medicine, the masses must remain the easy victims of ignorance, superstition and quackery, as of old.

But let me not be misconstrued as in the least reflecting upon our profession, as though little or nothing is being done along the lines I have suggested. All along, with the rapid and marvelous advancement of the science of medicine and surgery, both in combating and preventing diseases, the people in general are becoming also more and more enlightened, and are listening more closely and in greater confidence to the voice of the profession. The family physician, working in the increased light of the day, is doing no more experimental guesswork; and the intelligent public is learning as never before to work hand in hand with him.

While the present is optimistic and the future even more so, there is much remaining to be done by the public before scientific medicine and surgery can render their largest service. I would here appeal, not to you as an audience of physicians alone, but also to the masses whom we would serve, and say that the time is here when the press of the country, both secular and religious; when our legislators, State and Federal, and when the people in general were all recognizing the worth, the needs and the legitimate demands of the medical profession and coming into intelligent and sympathetic co-operation with its efforts and plans to improve the health conditions of the country and to combat and prevent the ravages of diseases that have so often in the past swept away multitudes of our people; it is high time that *all* were recognizing the fact that the medical profession is one of the most "self-sacrificing professions in the world," and that it is the duty of the people at large to cry down the idle and criminal talk of "Doctor's Trusts" and "Doctors' Combines," and to stop their ears to all such fallacious

and mischievous statements that can have no other effects than to retard the efforts of the trustworthy physician in behalf of the public welfare. Such unworthy and malicious accusations give nothing but weapons to the quack and his kindred; enemies of mankind, to be used in preventing progress in the real science of medicine and in keeping from many people the blessings of scientific treatment for the cure and prevention of disease. The profession has been subjected to all kinds of indignities and false charges by the charlatan and patent-medicine pretender—these vampires that have sucked the blood of suffering humanity so long that they have grown arrogant, and blatantly assume to themselves all the virtue and wisdom of the age. Too often they arouse the passion of ignorant, though otherwise good people, and blind them to their real condition of health, and lead them away from their only hope of recovery. However pious and pompous may be their pretensions, they are but murderers of confiding and helpless people; and the government has not the moral right to afford them the protection of the law, and the people who encourage them commit a crime in their ignorance against the race. The people, as well as the man who would enter the profession of medicine, need to be impressed more fully with the far-reaching importance and sacredness of the profession that enters so vitally into the common health and welfare of the country. They would then learn all the better to rely upon the protection and treatment of the regular family physician, instead of surrendering themselves as victims for the patent medicine nostrums and the quack. And, furthermore, the public would learn that none but high-grade, well-equipped medical schools for the training of physicians should be encouraged or even tolerated; and, above all, that none but safe, moral and upright men with the highest ideals and the best literary qualifications and training as students should be permitted to enter upon the study of medicine. There is a righteous demand for wise and rigid legislation throughout the nation just here. There should be uniformity of action among all the States. The higher the standard and the more rigid the demands made by the laws of the country, the better the protection of the people and the worthier will be the character of the men who shall constitute the profession. No practitioner worthy of the privilege of a standing in the profession will join the calamity howl from the

ranks of the false pretenders who are earning their money to-day at the price of blood, when such necessary, such sadly needed, and such long-delayed legislation is attempted.

And may I say that I am hoping to see the day when it will no longer be necessary for our medical organizations to petition our legislators for the better protection of the profession and of the people? It will be seen that the protection of the one is the protection of the other. The public will eventually, and of its own initiative, demand the passage of such laws as will permit none but honest, moral and well-equipped doctors to practise the art of healing; and in case of malpractice or deliberate unprofessional conduct, the people will demand such laws as will disqualify the offender and revoke the license that gave him recognition in the profession. Indeed, the "passage of good and rigid laws and the appointment or election of strong and competent men to enforce them would soon rid the country of the charlatans and ignorant pretenders" that infest the land, and strike the death blow to quacks and vendors of nostrums, whose stock in trade is the credulity and ignorance of the people to whom they go, with nothing but mercenary motives beneath their own fearless and unscrupulous deception. There is no creature of any pretensions of "respectability, so low in the estimation of honorable and upright men as the man who traffics in the ills and afflictions of his fellow-men, or who withholds any remedy or treatment from the world that might alleviate human suffering or asist in saving human life. And yet one can hardly pick up a daily paper anywhere without beholding the glaring headlines of advertisements of pretentious cures that are false and diametrically opposed to every tried and tested and assured fact of medical science. These constant crimes against humanity are permitted because their real criminality is beyond the circle of knowledge in such matters of the average man of the world. Under the advancement of enlightenment of the masses in matters of medical science in the future, these long tolerated abuses of quackery will disappear as the cruel customs of society are disappearing before the advancement of the higher civilization and enlightenment of the day.

There is advancement all along the line, but there remains much yet to be accomplished by the public in bringing about the full co-

operation and confidence that must exist between the profession and the people. All worthy medical men who have dared to raise a voice against the dangerous evils of false and hurtful practises upon the afflicted know the consequences too well. Too often is it the case that the very ones most sadly imposed upon join hands with the quack and help him fight against the advancements that true medical science is seeking to accomplish for the public good. But the outlook is most optimistic. No profession in the world has, perhaps, made such rapid advancement within the last century as the profession of medicine. We are not discouraged when we find that it has been a constant battle in every country and in every age. But the advancing light of truth dispels the darkness. One in the long ago is reported as having said, "Ye shall know the truth, and the truth shall make you free." In no realm is the truth of this declaration more accurately demonstrated than in the realm of medical science. When we come to the full-grown day of scientific knowledge, and the public more fully understands the science of medicine and the art of healing, and the effects of ancient superstition regarding sickness and disease have been buried in oblivion, then will the quack and the fake and the multitude of fads that infest the land with their unscientific and hurtful pretentions take their flight, and then reason and common sense will reign supreme.

While it is not within the limits, as well as within the purpose of this address to attempt a full historic account of the progress of medicine, it is well to review perhaps a few of the steps that have marked the evolution of medical science. Let us look, then, very briefly at a few of these points.

Among the ancients, medicine meant mystery; and the "humors" and fluxes" that affected the human race were looked upon as being inflicted by the offended gods, or evil demons. Medicine was subordinated to religion, and the practice of healing was essentially a priestly function. The relation of the healer to society was close kin to that of the clergy. Indeed, the two functions were usually united. The overshadowing of the healing art to this day by religious functions and authority is but the remnant of the superstition of the past; and the progress of real medical science has yet to contend with a large element of religious superstition among many people in the world. This does not mean that there is conflict be-

tween true religion and medical science. The profession of the ministry and the profession of medicine walk hand in hand in the struggle for the elevation of the race; but each calling must recognize the scientific facts in the field of the other, and the separateness of the spheres each is to occupy. The subordination in the past of the healing art to the authority of religious functions among the most advanced pagans held the advancement of medical science far in the background long after other sciences had made great strides of real progress.

So long as the human body could not be scientifically studied and the vital organs be understood, surgery could not make any progress. Without a knowledge of anatomy there could be no surgery. What is surgery, anyway, but a correct knowledge of the parts of the body and their functions, and the proper mechanical methods of correcting trouble with the organism of the body? What progress could be made or expected in the use of remedial agents when the physiology of the organs and the tissues was a closed book? Slowly and laboriously an empirical knowledge eventually brought about a therapeutic system, and a list of remedial agents for the relief of suffering and disease. It is a fascinating story, especially to all lovers of scientific truth and advancement, that we have, in the history of medicine among the ancient Egyptians, Chaldeans, Persians. Phenecians, as well as among the Greeks and Romans of a later age. This story ought to be in the textbooks now used in our public schools as a means of further enlightenment of the public concerning its scientific and physical welfare.

Talmudic knowledge among the Jews, both of medicine and surgery, showed a great advancement in ancient times over the pagan peoples, along these lines. It would be interesting to follow the progress of the medical profession through the civilizations of the Hindus, the Chinese, and later the Celts and Teutons. The deliverance of medicine from superstitious bondage is a most interesting story. It was a slow process, and marked the evolution of human growth amidst the civilizations of the world.

With the dawning of the day of true scientific knowledge and the application of real scientific methods, there comes a charming story of progress as, step by step, the ladder is climbed and medical science reaches the heights of the present-day achievements and its long sought for victories in many things.

Medical schools, in which the art of surgery was taught with some proficiency in Ancient Greece were established around the temples dedicated to Esculapius, and here the two sects, the Empirics and the Dogmatics, came into existence, and resulting in the union of theory and reason with experience.

Alcmæon, a pupil of Pythagoras, about this age, discovered the optic nerve and eustachian tubes; and he is said to have been the first animal anatomist. He looked on health as harmony and disease as discord in the body between heat and cold, dryness and moisture.

The "Atomic School" taught the principle that all things, when reduced to their last analysis, are made up of minute atoms of nature within which reside order, form, position and motion, disease being a deviation from the normal.

Comparative anatomy marks its beginning from Aristotle, its father, who opened up the field of the natural sciences to the physicians and impressed on them the importance of beginning the study of medicine with a basic knowledge of these sciences.

The School of Alexandria, in 300 B. C., began the dissection of the human body and thus cleared up much imperfect knowledge of the subject.

In the year 100 B. C., Asclepiades gained notoriety by denying the theories of Hippocrates and all his predecessors; and he instituted an atomic theory that sickness is a turbulent deviation from the normal placid agitation of the atoms; that it arose from the inspired air and ingested food creating an atomic stagnation. He founded the school of "methodism," which stood midway between the Empirics and Dogmatics, and traced all diseases to the disturbance of the solids, instead of the fluids, as taught by Hippocrates.

The story of the evolution of medical science through the centuries is too complicated to allow a discussion here. It would be well worth our time to trace it out in full. You who are physicians have doubtless done so. The introduction of chemistry into the domain of medical science by the Arabians marks an important point. Medicine, pharmacy and materia medica formed their curriculum, surgery and dentistry being beneath the dignity of a physician, and mid-wifery and gynecology being forbidden men, while surgery was inhibited by religious belief.

The advancement of surgery through the mastery of human anatomy comes as one of the greatest blessings to humanity, and marks a subject of unusual interest in the history of the progress of science. Marked advancement was given through the rise of the universities of Bologna, Paris and Oxford. The introduction of the printing press and printing of books revolutionized the world along all scientific lines, and the medical profession has kept pace with progress along other lines, and stands out to-day with such assurances of absolute certainty in its field that it can no longer be questioned by the skeptic or the old-time fanatic who played upon the ignorance and superstitions of the people.

But, standing as we do to-day, in the dawn of the new century, and in the most advanced light in the scientific world that humanity has ever enjoyed, with enthusiasm at the highest point and the vision of the future the most optimistic, what is the outlook of the twentieth century? One fact is evident: The century marks a growing disposition on the part of the medical world to prevent rather than to cure. The biologists and other laboratory workers are pointing out the causes and modes of transmission of disease, and the duty of the medical profession is to look to the prevention of these causes. This phase of our work is bringing the physician more and more into contact with the public, and is thus becoming a co-operative condition. A higher standard of enlightenment among the masses must result from it. The rise of the modern germ theory, which began in the microscopic researches of Haller, Morgagui and others, and which theory has been demonstrated to the fullest satisfaction of the most exacting skeptic, has marked an epoch in the knowledge and treatment of disease.

To Pasteur's researches and demonstrations in fermentation and putrefaction our present knowledge of germs is based, which was further advanced by Robert Koch's bacterial researches and discoveries.

I need not mention to the intelligent layman that to the immortal Jenner we owe the prevention of smallpox by vaccination; to the late Lord Lister, antiseptic surgery, and to Von Behring the antitoxin treatment of diphtheria, the latter opening up the field of serum therapy.

The genius of Nott of Mobile, Beauperthy, Carlos Finlay and

Walter Reed solved the problem of yellow fever, and that scourge has now no longer any terrors to our Southern communities. The pandemic of bubonic plague, which, in the Middle Ages, would have swept all before it, is held in check by the knowledge of the cause of its transmission. The great white plague, while still at the head of the mortality list, has lost much of its dread since it is becoming well known that at least 80 per cent can be cured, if the matter is taken in hand while yet in its earlier stages. The handling of typhoid fever is growing easier as the profession is reaching a better understanding of that disease. The same thing is true with all fevers.

You ask what we have yet to accomplish? Our answer is, we are just ready to begin the largest work and to achieve our greatest victories. The great field lies out before us almost as yet unexplored. We have but seen it, and have learned its boundaries from afar. While we understand the nature of tuberculosis and its causes of transmission, the disease has not surrendered. Measles and whooping cough are still serious and universal scourges. Cancer remains, as another has said, "The scandal of medicine." We must find its remedy. Gonorrhea and Syphilis continue to be sown together and to yield their bountiful crops of disaster. The field of mental and nervous diseases is a jungle yet of many unknown horrors. There are problems regarding the internal secretions; and auto-intoxication is rightly called "a tattered cloak for our ignorance." Pneumonia baffles us as of old; and we battle still in oft defeat with acute and chronic joint inflammations and degenerations, while kidney disorders and arteriosclerosis await some more satisfactory elucidation. Yes; we have not explored it all, and there remains much to conquer in the fields where our most certain explorations have already been made.

And now, may I add, without taxing your patience too long, a few remarks regarding

Gratifying Things To The Profession In This State—The medical profession has been awake only within recent years to its obligation to *prevent* as well as to *cure* disease. In this matter of progress our own State of Louisiana has come in for its share.

I am sure that it is gratifying to every member of this Society that the epochal principle was first enunciated by a member of this Society and early endorsed by the Society, that "Public instruction

in hygiene, and the cause, nature and prevention of communicable diseases in man and the lower animals, and that it is the duty of the State to furnish this instruction;" and further, that the first institute of popular hygiene was held in this State, in Opelousas, in 1898; and that the first test of the practical value of the system was made in this State in the epidemical and post-epidemical instruction of 1905 and 1906, which converted our people to the true mosquito doctrine of yellow fever transmission. It is also gratifying that a legislative body in this State was the first to endorse the principle in the passage of the Hygiene Bill, and that the veto that prevented its final enactment into law even recognized its value. Had it been enacted into law, the State would have been spared the epidemic of 1905.

It is gratifying to note that the president of the present State Board of Health has carried on this educational system by methods that have been universally admired, and in some instances, adopted by other States.

It should be equally gratifying to the profession of this State to know that the modern systems of Maritime Quarantine are all based on the "Louisiana System," or "Holt System," as it is sometimes called, and which has so long been in vogue at the mouth of the Mississippi River.

Looking away from present achievements that have been gratifying to us as fruits of our scientific efforts, we would suggest, in conclusion, a few remarks concerning

THE FUTURE PURPOSE OF OUR STATE MEDICAL SOCIETY.—Encouraged by the fruitful results of the past, it shall be our aim to keep up the ethical standards of the profession to the highest and most rigid demands, and to grow in power and efficiency; to strive for all legislative relief in the future, as in the past, that shall protect the public against quackery in any of its forms; to further enlighten the public by all possible educational means, and to strengthen the bonds of co-operation between the profession and the public in all matters of common interest to the general health of the country; to co-operate to the utmost limit of our ability with the State health authorities along hygienic educational lines, and to aid in the enforcement of the sanitary code; to uphold the vital statistics law, and to give mortuary statistics as the law contem-

plates. Some lack of proper co-operation here by many of the profession in the past has caused the prospective investor from abroad, the insurance companies, and many people of other States to get an erroneous and unjust idea of health conditions in Louisiana. As public-spirited and patriotic citizens of our State, we must overcome the evil effect of this false impression that has gone abroad that Louisiana is a land of malaria, mosquitoes, alligators and swamps, and that the people generally are a sickly lot of folks, with faces already turned toward the graveyard. We must not be indifferent to the demands of the pure food laws; and in all things where the medical profession should and must lead, we must, as individuals, discharge the duties upon us as the high character of our calling justly demands. Is it too much to say that our legislative efforts in the near future should be directed toward the improving of the medical act so that it will not only afford the public protection against quackery, but also that there may be revocation of medical license where the holder, after due trial by his peers, shall be found incompetent, or where his moral conduct becomes debased and his practice immoral? Surely, no capable and worthy physician in all the land could offer any reasonable objection to such legislative enactments, and most surely the sick and suffering are entitled to the best service that the profession can bring. The higher and more rigid the demand, the higher will the profession rise in the public confidence and the higher will be the grade of physicians we will have, and the better will be the service they render to humanity.

Address for the Louisiana State Medical Society, In Memorial of Stanford E. Chaille.

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

By resolution of this Association, passed at the last meeting in Shreveport, this evening has been set apart to honor the memory of Professor Stanford Emerson Chaillé, whose distinguished career as soldier, military surgeon, scholar, educator, sanitarian, public-spirited citizen and organizer was ended on May 27 of last year. Whatever of success as organized body of medical men we have attained is due in large measure to his initiative and his wonderful executive capacity and indomitable persistence as a member of this Society. It is fitting, therefore, that we should here, in this hall,

where so much of his life work was done and where this Society has year after year met in annual session, pay tribute to his unselfish and devoted efforts in behalf of the public weal and especially of the Louisiana State Medical Society.

We can add nothing to his fame; his works and his life speak for him, but we should, and do, welcome the opportunity to testify to our esteem for him and our gratitude for the eminent services he rendered. He has left us in the body, but his spirit yet abides in the deeds which he wrought.

"Love, gratitude and reverence for the dead have expended incalculable sums of money to perpetuate the memory of those most loved, or most distinguished on costly tombs, mausoleums and monuments. Many of these have crumbled into dust, many have lost with time their significance, and many have ministered chiefly to family vanity." These words were used four years ago by our lamented friend in laying the corner-stone of the new Richardson Memorial, on the Tulane University Campus. We shall build no costly memorial to his name—he needs none to enshrine him in our hearts. The simple bust, which shall be unveiled to-night, is meant to serve as a constant reminder of the days when he worked and wrought with us.

> "How mournfully sweet are the echoes which start
> When Memory plays an old tune on the heart."

Whenever we shall look upon it we may imagine him again living and working with us—the same old stalwart leader and veritable war-horse in this University and this Society.

I would that the duty of tribute had been assigned to more capable hands, but as my friends have asked it, I shall strive as adequately as I may to show forth the debt we owe him as an organizer and champion of State medicine. Others who follow me will take up other phases of his life.

In nearly all fields of his varied activities he labored incessantly and with single purpose and he had the gratification before his death of enjoying many of the fruits of his labors. Many years before he left us he witnessed the redemption of his beloved Louisiana from carpet-baggery and misrule. A few years before his death he was able to rejoice in the consummation of his fondest hopes and saw the Medical Department of the University take her

place in the front rank of modern medical institutions, and last year, in a notable address before the Orleans Parish Society, he expressed his heartfelt gratification at the evidences of life and progress in the medical organizations of the State after thirty-four years of continuous existence.

It was a happy conception of his friends and pupils at the jubilee celebration, in 1908, of his fifty years of service, to lay before him, as in a panorama, the achievements of his life—to show him, as it were, the promised land of honest effort and honest work. We rejoice that by this celebration we were able to gladden his declining years and, to-night, when he cannot again be with us, we meet to acknowledge before the world our debt of gratitude to him. The theme assigned to me is one that I shall gladly present to you.

Dr. Chaillé has himself, in the last address delivered by him, given a graphic account of the origin of this Society. Think of it! Of the thirty-eight States of the Union in 1877 Louisiana and Nevada were the only two without a State Medical Organization. Writing in the New Orleans Medical and Surgical Journal for May, 1878, Dr. Chaillé gives a brief history of the first attempt to organize in 1849 a State Medical Society. The effort had its inception in the Attakapas Medical Society, organized in 1846. It issued an invitation to the medical men of the State, in May, 1848, to meet in convention in March, 1849, in New Orleans, to organize a State medical association. Some physicians did meet on March 20, 1849, and organized the Louisiana State Medical Society, adopting a constitution. At the first session, of the forty-eight present, forty-four were from Orleans Parish, four Parishes being represented by one each. In 1851 the second session was held, very few members from the country being present. The third session was held in 1852, very few from the country responding. At the fourth session Dr. E. D. Fenner presided, with forty-two present, nearly all from New Orleans. The fifth, in 1854, and the sixth, in 1855, were equally unsuccessful, due to the apathy and indifference of the country parishes. The Society died of inanition. No further effort was made until 1878 to organize the profession of the State. It needs not now that the past of 1849 to 1855 shall rise from the grave, as Dr. Chaillé wrote in 1878, and shake its stern finger in instructive warning at the present, but it did need some such warn-

ing at the first actual meeting of this Society, in January, 1878. This convention, or preliminary meeting, was attended by forty-six from Orleans Parish and by thirty-four from fourteen other parishes, and these eighty members may be deemed founders of our State Society. The State had just the year previous been redeemed from carpet-baggery, and a new vigor had been infused into people of all walks of life. The time was propitious and the tide was taken at its flood.

At this meeting Dr. Chaillé was elected Annual Orator and Chairman of the Committee on Organization. At the second meeting, in April, 1879, he delivered a vigorous address on State medicine and medical organization and presented as Chairman the report of the Committee on Organization. This report was adopted April 9, 1879, so that this date is the date of permanent organization of this Society. These regulations remained in practical force until the Society was chartered and new regulations adopted in 1903. Dr. Chaillé divides with Dr. T. G. Richardson and Dr. S. M. Bemiss the honor of initiating the effort to organize this association, but without detracting from the merit of these distinguished men, I know that to Dr. Chaillé is due the greatest meed of praise. The chief labor of preparing the regulations devolved, as he acknowledges in his address last year before the Orleans Parish Medical Society, upon him as Chairman. With his usual thoroughness he secured and studied the regulations of over twenty States and of every other notable county or city society in the United States. I joined this Society in 1879 and can testify with what zeal Dr. Chaillé labored to make of this body a power in the State. For nearly ten years he worked in committee and on the floor of the Society for State medicine and carried his vigorous persistency into the Constitutional Convention of 1879 and into the halls of the Legislature. Only in 1885, when, to his exacting duties as Professor of Physiology, there was added the onerous labor of Dean of the Medical Department did he relax his efforts in behalf of medical organization. I was associated with him during these years in committee work and know how great his labor was. Through the efforts of this committee there was embodied in the Constitution of 1879, Article 178, which was to the effect: "The General Assembly *shall* provide for the interests of State medicine in *all* its depart-

ments." However, only three of the eleven specifications proposed were added. The Constitution of 1898 re-enacted Article 178 and added *two more* specifications. This mandatory article has been the foundation of all our succeeding legislation, so that neither this fact nor the credit due to Dr. Chaillé should be allowed to pass into oblivion. Dr. Chaillé, as Chairman of both committees of the State and Orleans Parish Societies, compiled all the work of these committees from 1878 to 1887. The annual reports for the ten years—1878 to 1887—comprise 113 pages devoted to State medicine. The most noteworthy annual report of the committee was a petition to the General Assembly in 1881, urging that body to enact laws on fourteen specified subjects. Up to 1886, seven laws in the interests of State medicine were enacted. To the honor of Dr. Chaillé be it said, that nearly all the laws enacted by our Legislature grew from the seed planted by the State and Parish Societies from 1878 to 1887. I shall not weary you with the details of the results of Dr. Chaillé's labors, but a study of the numerous publications of this Society will convince anyone that his services in behalf of State medicine cannot be overestimated. He was unusually well equipped for such work. After a good preliminary education he had entered Harvard and had graduated as A. B. in 1851, receiving subsequently the Master of Arts degree. He returned to New Orleans and began at once the study of medicine, graduating in 1853. He was successively resident student in the Charity Hospital, resident physician in the U. S. Marine Hospital, and Demonstrator of Anatomy and Professor of Physiology in the Medical Department. He had also served in the Civil War in positions requiring great executive ability, and filled them all with credit. He early began to write on public hygiene, his first of many publications on this subject being in 1869. In 1875 he became deeply interested in medical jurisprudence and made a careful study of State medicine in all its departments. He originated for the benefit of this Society the first comprehensive definition of State medicine, and he was foremost in urging the efficient organization of component medical societies, in affiliation with the State and National organizations and their study of State medicine as the most important of all subjects. He was ever zealous in teaching that the greatest duty of medical organizations was to promote the public welfare. He

believed that prevention was better than cure, and was constantly striving to diminish distress and disease by teaching the laws of health and the avoidable causes of disease.

Some of his most notable work was done for the National Board of Health, first as one of a committee of twelve experts appointed to study the great epidemic of yellow fever of 1878. Subsequently, he was one of four composing the Havana Yellow Fever Commission, which made a thorough study of the environment, propagation and dissemination of yellow fever in Cuba and its commercial relations with this country. The report of these investigations was admirably done in compliance with the behest of the National Board of Health that 'whatever was done should be so done and recorded that it need not be done again hereafter." The presentation of data and the deductions therefrom were monumental in character and went as far as our means of investigation at that time permitted.

All the labors of Dr. Chaillé are stamped with system, simplicity and great thoroughness. He made a study of any subject in all its details and was very methodical. To these qualities must be attributed his success in medical organization. He was not quick to adopt innovations and was not radical. It might be said of him as Dr. Palmer said of Dr. Richardson, that he was conservative, yet progressive. Nothing shows better the openness of his mind than his paper on "The Stegomyia and Fomites in Yellow Fever," read at the meeting here in 1903 of the American Medical Association, when Dr. Chaillé was seventy-three years of age, and I remember well the stinging rebuke he administered to an old fossil who spoke contemptuously of the mosquito theory in the medical section of the *American Association for the Advancement of Science,* when it met here in this very hall a few years ago. His paper shows that he had made a thorough investigation of the work of Reed and Carroll. He thought the notable experiments of Reed, Carroll and Agramonte, added to by the labors of Finlay, Guiteras, Gorgas, Ross and Carter had contributed to our knowledge of yellow fever facts that he hoped would prove of greater value than all the facts gained by all preceding students of the disease. For the reasons given in his paper he accepted the stegomyia "as a welcome substitute for those unknown mysterious con-

ditions" about which he had wasted, he believed, "many weary hours of study," and he earnestly hoped that the future might permit his brain to rest in peace with the comprehensible stegomyia—"unvexed by the incomprehensible, mysterious hoodoo, fomites" * * * * "All experience was (with him) an arch wherethro gleamed the untraveled way."

A striking characteristic of his mind was to inform himself thoroughly of what had been previously done before attempting any original work, or to draw any conclusions. This habit was conspicuously displayed in all his work of organization in the parish and State societies. When he had sifted his data and was prepared to make his recommendations, he was clear and forcible, sometimes dogmatic, so that often he provoked antagonism and criticism, but he was so earnest that in the end he was convincing and usually carried his point.

Dr. Chaillé believed with Louis XIV that "punctuality is the politeness of Kings," and was, therefore, impatient with those who kept him waiting or wasted his time. He was simple, direct and positive. He had a strong sense of justice, was of absolute integrity, was often brusque, but never dissimulated. His friends found him always loyal, his opponents a hard fighter, but a fair one.

He has left his impress on the profession of this State, and his labors are embalmed in the proceedings of this organization. It was his privilege and his gratification to enjoy some of the fruits of his striving for this Society and to behold the future of this body assured in the basis of its organization, a foundation which he had in principle advocated many years before. In his address just one year ago before the Orleans Parish Medical Society, he expressed in complimentary terms his great satisfaction and hoped that we would, as a body, continue vigorously to strive for power to the end that we might successfully make our influence felt for the good of the profession, and above all, for the uplift of humanity.

In all his varied fields of work he has left his impress, and his influence will be felt so long as we shall strive and labor for the good of man, the noblest study of mankind. It is right, therefore, that we should honor him to-night for his devotion to the work of

this body. He never failed for years to counsel his graduation class to join some medical society and to work earnestly and unitedly for the profession and the people. If the unselfish character of his labors be held in high relief, we could not wonder if he would say, with Abou Ben Adhem, to the angel, "Write under yonder bust, 'He loved his fellow-men.'"

Truly, "peace hath its victories no less renowned than war," and the whole life of Dr. Chaillé conspicuously shows what one man can do who persistently strives to do with all his might whatever his hand findeth to do.

Dr. Stanford Emerson Chaille.

Address by MR. GEORGE DENEGRE, of New Orleans.

Dr. Stanford Emerson Chaillé was born at Natchez, in the State of Mississippi, on the 9th day of July, 1830, and died in New Orleans on the 27th day of May, 1911, his life thus covering a period of eighty years and ten months, nearly two-thirds of the existence of the Government of the United States, and four-fifths of the existence of Louisiana as a State. The country grew from some two dozen States, with about thirteen million people, to forty-six States, with a population of ninety million; passed through one of the greatest crises of any nation, and made such material progress as no nation has ever made in an equal period. Dr. Chaillé grew with the growth of the country, and by sheer force of character, vigor of intellect and untiring industry had become an acknowledged leader in his chosen profession of medicine, had earned the reputation of being one of its most successful and accomplished teachers, and had taken rank amongst the best-known and most valued citizens of the State and city of his adoption.

The life of Dr. Chaillé should be an inspiration and encouragement to all young men, and especially to all young men of his own profession, for it marks what can be accomplished by earnest endeavor, devotion to duty, singleness of purpose and steady application.

Dr. Chaillé's ancestors were Huguenots. Bouchet-Filleau's Historical, Biographical and Geneological Directory of the Ancient Families of Poictou, cites the Chaillé family as having furnished

Poicters with a long line of mayors, and the family was prominent as far back as the Fifteenth Century. Dr. Pierre Chaillé, the founder of the American family of Chaillé, escaped to England after the massacre of his family and the revocation of the Edict of Nantes, became an English citizen and emigrated to Boston about the year 1700. Family tradition relates that he had the greatest horror of his native France in consequence of the brutal religious persecutions that he had witnessed, that this horror extended even to his mother tongue, which entirely disappeared from the family of his American descendants at an early date, and that, having heard that he had fallen heir to some property, he would not return to France to claim it. One of Dr. Pierre Chaillé's sons went to Maryland, settled and married there, and his only son, Peter Chaillé, grandfather of our Dr. Chaillé, became a colonel and distinguished officer of the Revolutionary War, was for twenty-six years a member of the Legislature of Maryland and was chosen a member of the committee delegated to sign and ratify the Constitution of the United States on behalf of the State of Maryland.

William Hamilton Chaillé, father of Dr. Chaillé, and grandson of Col. Peter Chaillé, emigrated from Maryland to Natchez in 1819, and in 1828 married Miss Stanford of Maryland. He became a prominent citizen of Natchez, and died there in 1836, respected, honored and beloved. It was said of him that "he was exceedingly generous, hospitable and charitable, just and honorable in all his dealings, true as steel to his friends, and that he had made no enemies."

Dr. Stanford E. Chaillé, the only surviving son of William Hamilton Chaillé, was six years old when his father died, fourteen years old when his mother died, and, having no brothers or sisters and no near relatives to live with, knew little of his family and ancestry until, at the age of twenty-one, he visited his relatives in Maryland.

Dr. Chaillé's mother was a very superior woman, as is generally the case with men who make their mark. He has recorded of her that she taught him "that order and punctuality in all things were debts due to one's own honor, and that justice must be fully satisfied before generosity had any claim to be heard," and that he had often heard her say that if it took every cent his father had left to both

of them he should receive the best education the country could give. He was kept constantly at school, or had a private tutor. His mother never permitted ordinary bad weather or any ordinary impediment to keep him away from his school duties, and taught him what duty meant, and also to be self-dependent.

His father left his widow and son a moderate competence, and on the death of his mother in 1844 Dr. Chaillé went from New Orleans to Boston in a sailing vessel to his testamentary guardian, Hubbard Emerson, for whom he had been partly named, and was received as a member of his family, treated as a son, and placed at Philip's Academy, Andover, Mass., preparatory to being sent to Harvard College. Graduating at Andover amongst the first of his class, after three years of study, Dr. Chaillé entered Harvard in 1847 at the age of seventeen. At Harvard there were three well-known student societies. No student could belong to them until his second or Sophomore year, and then only by vote of the Juniors and Seniors. He was the first man of his class chosen for membership in two of them and the second man chosen for the third—a high compliment, indicating his influence and popularity as a youth. Each class gave two annual presidents to one of the societies, and Dr. Chaillé would have been the second annual president, but he refused to allow his election in order to promote the harmony of the society, for this was during the celebrated compromise measures of 1850-1851, when political discussion and prejudice were warm in the class, and, being an ardent Southerner, he felt it improper in a Northern college to accept a position against which a minority had strong prejudices.

Among his college friends were the sons of United States Senator Rhett, of South Carolina, and the son of Pierre Soulé, United States Senator from Louisiana, and largely through their influence and association he became a rampant secessionist, studied the political question very thoroughly, and formed opinions which he maintained in a great degree to the end of his life.

Late in 1850 Dr. Chaillé left Harvard because of persistent ill health—dyspepsia. His class was to graduate the following June, and his record and standing in his studies had been so high that the faculty, before he left Harvard, resolved to give him his diploma with the class, and the president, the Historian Jared Sparks, gave

him a written certificate in which he stated that, had Stanford Chaillé's health permitted him to remain, he would have received one of the customary honors then bestowed upon a number of the best students of the class.

The winter after his graduation Dr. Chaillé came to New Orleans, where his maternal uncle, Clement Stanford, resided, and, influenced by his cousin, Dr. John Weatherly, then a medical student at the Charitly Hospital, determined to make New Orleans his home and study medicine here. He had always intended to study law, and always entertained some doubt as to whether he had chosen wisely in selecting the medical profession.

Going to visit relatives and friends in Mississippi before he settled down to his studies, Dr. Chaillé returned to New Orleans on the steamboat *Brilliant,* then a noted "racer on the river," which he said was "commanded by a famous captain who had blown up several boats." True to the reputation of her captain, the *Brilliant* blew up, her boiler killing and wounding some ninety people. Dr. Chaillé plunged into the river as soon as the explosion occurred and struck out for the shore. Looking back after he had swam some distance, he saw that the *Brilliant* was still afloat and apparently in no danger of sinking, swam back, and was pulled aboard in an exhausted condition, just in time to save his life.

I have heard Dr. Chaillé say that, as a physician, as a resident of hospitals seven years, as an army surgeon four years, he had seen many terrifying sights, but none equaled the horrible and ghastly spectacle of the killed and wounded by that steamboat explosion.

In October, 1851, Dr. Chaillé opened his first book on medicine—Wilson's Anatomy—and in 1852 was elected a resident student at the Charity Hospital. He was a faithful student, and just prior to his graduation, when his comrades were discussing what each would do after receiving his diploma, provoked a laugh by announcing that he intended to be a professor of the University of Louisiana, whereupon one of his chums, realizing even at that early date Dr. Chaillé's indomitable will and fixity of purpose, remarked, "Well, boys, you may laugh, but if Chaillé says he will do it I'll be hanged if he don't do it.'

He graduated in March, 1853, just seventeen months after he had begun his studies, and in afterwards referring to the fact,

instead of doing so boastingly, remarked that it was, in his opinion, a sad commentary on medical education in the United States at that time. This opinion seems to have largely prompted and guided him in his life's work—the betterment of medical education in this State and the enlargement of the opportunities and facilities for medical education in the University of Louisiana.

His attainments and earnest devotion to his profession enabled him to succeed in inducing the Administrators of the Charity Hospital to reverse their hitherto unbroken rule and to permit him, though a graduate, to remain as a resident student in the hospital.

Leaving the Charity Hospital, he became for one year resident physician of the United States Marine Hospital, and afterwards, up to the year 1860, resident physician of the Circus Street Hospital or Infirmary, where he was associated with Dr. Armand Mercier. From 1857 to 1868 Dr. Chaillé was co-editor, with Dr. Warren Stone and Dr. James Jones, of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

Though exposed to yellow fever in 1852, 1853 and 1854, it was only in 1855 that he had a mild attack.

In 1857 Dr. Chaillé married Miss Laura Mountfort, of New Orleans, who died in 1858, leaving an only child, Mrs. David Jamison, who, with her two sons, survives him. One of these sons, now a resident student of the Charity Hospital, will graduate this year.

Dr. Chaillé became a professor of the Medical Department of the University of Louisiana in March, 1858, and, with the exception of the time he served in the Confederate Army during the Civil War, continued to be a member of the faculty until he retired in 1908, the occasion of his retirement being marked by a spontaneous tribute paid to him by the Tulane Board of Administrators, the faculty of Tulane University, his brethren of the medical faculty, the Alumni Association of Tulane and the citizens of the State.

No greater or more deserved tribute was ever paid to a citizen. Mr. Justice Monroe spoke of Dr. Chaillé's "Contributions to Medical Jurisprudence and his Labors as a Medical Legislator and his Patriotic Services During the Confederacy"; Dr. Lewis S. McMurtry, of Louisville, ex-president of the American Medical Association, who had been one of Dr. Chaillé's students, came from his home to bear witness to his abilities and success as a "Medical

Organizer," and Dr. George M. Sternberg, of Washington, ex-Surgeon General of the United States Army, felt it a duty and pleasure to be present and add his tribute to Dr. Chaillé as a "Sanitarian, Public Hygienist, Medical Diplomat and Investigator of Tropical Diseases, Especially Yellow Fever, and his Labors and Services as President of the Yellow Fever Commission of 1879." Dr. Paul T. Talbot, of the medical class of 1908, spoke of Dr. Chaillé as "The Master Lecturer and Honored Teacher," and Dr. E. S. Lewis, of the Medical Faculty, Dr. Chaillé's brother professor and brother in love, reviewed his life as "Dean and Medical Educator," and spoke very feelingly of him as a "Colleague and Man Among Men."

At the outbreak of the war Dr. Chaillé became a private in the New Orleans Light Horse, later acting Surgeon General of Louisiana for some months, then Surgeon and Medical Inspector on the staff of Gen. Bragg, afterwards surgeon in charge of a hospital in Atlanta, and then ordered, by his own request, to build a hospital in Macon, Ga., he built it and had it in charge until his capture in 1865.

Returning to New Orleans, he again became a member of the Medical Faculty of the University of Louisiana, was elected Dean in 1885, and held that office until he retired in 1908.

Dr. Chaillé's power of labor was prodigious; no man's success was more fairly earned or more thoroughly deserved. His mental endowments were of a superior and splendid quality, but to these he added untiring industry.

To those who knew of his devotion to his duties as professor, of the care with which he prepared his lectures and studied the subjects which he taught, it was a source of wonder how he could find time for popular lectures on hygiene and for his many contributions to medical literature—for every lecture which he delivered, every paper which he wrote, represented hours of labor and research, because it was characteristic of the man that what he did he did well; he never undertook a task unless he performed it well; he was painstaking, and above all, thorough.

He wrote on vital statistics, on the origin and progress of medical jurisprudence; human anatomy and evolution; medical colleges; the medical profession and the public; State medicine and medical organizations; State medicine and State medical societies;

sanitation and evolution; abuse of alcoholics; reports of yellow fever commission, and other important papers, many of which were published in medical journals and periodicals throughout the country and made his name known to the medical profession and people of the country.

A member of the International Medical Congress which met in Philadelphia at the Centennial of 1876, Dr. Chaillé was selected to deliver one of the ten addresses, and his paper on Medical Jurisprudence attracted wide attention, made a profound impression and added to his reputation.

Dr. S. D. Gross, of Philadelphia, one of the most distinguished surgeons of the United States, who was President of the Congress, had publicly announced his determination to limit the delivery of every one of the ten addresses to the sixty minutes assigned by the rules to each address. Dr. Chaillé, while delivering his address, watched the clock, and, at the end of his hour, turned to Dr. Gross and said, "Mr. President, my hour has elapsed, and I, sir, await your orders," whereupon Dr. Gross loudly exclaimed, "Go on, sir; go on; we don't stop a race-horse when we get him on the track."

Illustrating the truth of the saying that it is only the busy man who has time to do anything, Dr. Chaillé also found time to fill a number of important positions. He was a member of the Louisiana State Board of Health, was appointed by the United States Congress one of the twelve medical experts to investigate the great yellow fever epidemics of 1878, and was chosen secretary of this commission of experts; was a member of, and served as President, of the Havana Yellow Fever Commission of the National Board of Health; was appointed "executive agent" in New Orleans of the National Board of Health, and later was appointed by President Arthur, confirmed by the United States Senate, and commissioned one of the seven civilians authorized by law to be members of the National Board of Health.

In 1885 Dr. Chaillé was chosen by the first, and also by the second, Committee on the Organization of the International Medical Congress held in Washington in 1887, to be Chairman of the Section of Hygiene, and in 1891 was chosen Chairman of the Section of Hygiene of the Pan-American Medical Congress to be held in Washington in 1893, but declined the great honors.

The controling feature of Dr. Chaillé's mind and character was absolute independence, and this independence marked his whole conduct—professional, public and personal. He had, in a pre-eminent degree, the courage of his convictions, and could not be swayed from his purpose. He had a high order of courage, both moral and physical. He was high-minded and active in all that tended to upbuild the community, and, to that end, gave freely of the stores of his learning, and of his time, to the public service.

His mind had wonderful clearness. His comprehension and analysis and memory were unusual. He thought strongly, spoke strongly, and with a directness and straightforwardness that carried conviction; was possessed to an unusual degree of the power of imparting his knowledge to others, and was a remarkably successful teacher. He never failed to impress all with whom he came in contact with the accuracy of his knowledge of any subject which he undertook to discuss, and was at all times an earnest and forcible, and, at times, an eloquent speaker. I say at times an eloquent speaker, for he never sought to be eloquent; he was too much in earnest; his purpose was to convince, and he made use of language simply as a means to that end—good, sound, sturdy English. A tireless and discriminatory reader, his reading took a wide range, storing his mind with general as well as special information, which qualified him to fill every position of honor or responsibility entrusted to him. He was capable of an amount of labor and self-absorption seldom, if ever, exceeded. Though his eyesight was not of the best, he lived with his books, and spent his days and nights in constant study. Earnest, exact, accurate, methodical and punctual, he had little charity for those who spoke on subjects of which they knew little or nothing.

He despised show, conceit and pretense, and dealt with realities. I never knew a man who had a greater hatred of knavery and trickery. He was a man of great simplicity of character, unusually unaffected and unpretentious, absolutely free from envy, of the highest integrity and honesty. His devotion to duty was great, and he was scrupulous in its discharge. When his conscience told him that a thing was right or wrong, he acted according to its dictates, and never stopped to argue with himself whether conscience was right or wrong. He was possessed of a sound judgment and an unlimited fund of common sense.

Dr. Chaillé was one of the most loyal and persistent of friends. He made friends and kept them, was an agreeable companion and most interesting talker. He had a keen sense of humor and relished a joke and his wide range of information, joined to these qualities, made the enjoyment of his society a privilege.

With all of these strong qualities he had a kind heart, full of human sympathy, and was ever ready to help a friend with purse, service or affectionate sympathy. He was a man to lean upon with full confidence that the trust in him was well placed.

His personal appearance, or presence, comported admirably with his vigorous mentality and strong character—strength and character being written on every line of his face, and showing in every movement of his sturdy form.

I have been told by a number of physicians who had studied under him years ago that he strongly impressed all of his students with the accuracy of his knowledge, the soundness of his judgment and clearness of mind; that all who studied under him had for him the deepest admiration, a respect and esteem mingled with strong affection, and that their association with him had a marked influence on their lives.

He was a strong and upright man, and left behind him an unblemished record of struggle and success. Long last the memory of all this splendid service and achievement!

Report on Status of the Chaille Memorial Fund.

By DR. A. L. METZ, New Orleans.

The monuments which we usually erect in human memories are as transient as the delicate tracery of frost-work woven from leaf to leaf of a morning in spring. Time, like a river, carries them all away with a rapid course; they swim above the stream for a while, but are quickly swallowed up and seen no more.

The marbles that men erect to perpetuate their names are consumed by time and silently moulder away, and proclaim their own mortality, while they testify to our own.

While our dear friend and teacher has passed to the great unknown, his vibrant voice still rings in our ears, not from the public records alone, but from the history of our own personal experiences

when we were students under his guiding care. His voice speaks to us in a thousand remembrances, incidents, events and associations.

He speaks to us to-night, not only from the silent grave, but from the throng of life as it is represented here. His voice, though physically inaudible, yet in the life of every alumnus made during his service of a half century's activity in this university, feels its presence, and even these venerable walls of the Medical Department appear to me to be echoing it to the accompaniment of the steps of a multitude of students who will come and go as long as the Tulane University of Louisiana has an existence.

The world would be but an ordinary and indifferent place if it contained nothing but the workmanship, the handicraft, the devices of living men. We love to see dwellings which speak to us of other things than earthly convenience or fleeting pleasure; which speak to us of the holy recollections of lives that were passed in them, and have passed away from them. We love to see scenes which offer more to our eye than fair landscapes and living streams, telling us of inspired genius and glorious fortitude that studied there, that taught there, and passed away.

It is a duty incumbent upon us—it is not a responsibility; it is a privilege, a magnificent privilege—to report upon the status of the Chaillé Memorial Fund:

Report Chaillé Memorial Fund.

General Statement.

A number of the Alumni of the Medical Department of Tulane University of Louisiana agreed that the occasion of the retirement of Professor Stanford E. Chaillé, M. D., from the Faculty and Deanship, at the end of the current year, would create an occasion in the medical history of the South which deserved more than usual notice. The Alumni Association of Tulane University of Louisiana accordingly appointed a committee to formulate plans for a Chaillé Memorial. This committee organized with Dr. A. L. Metz as chairman, Dr. Isidore Dyer as secretary and treasurer, with the additional membership of Dr. Rudolph Matas, Dr. Charles L. Eshleman and Dr. Isaac Ivan Lemann. At the first meeting the names of Dr. Frederick W. Parham and Dr. E. Denegre Martin were added for New Orleans, and the following alumni, from the various States of the South, were included in the Organization Committee, the original committee remaining the Executive Committee for purposes of expediency:

Alabama—James M. Mason, Jr. (1899), Birmingham; W. G. Thigpen (Class 1901), Montgomery; Jas. J. Peterson (Class 1901), Mobile.

Arkansas—Wm. E. Parker (Class 1891), Hot Springs; Jas. A. Foltz (Class 1901), Fort Smith; H. H. Rightor (Class 1904), Helena.

California—W. Turras (Class 1892), San Francisco.

Colorado—A. C. Magruder (Class 1900), Colorado Springs.

Florida—Russell H. Dean (Class 1875), Jacksonville; Urban S. Bird (Class 1895), Tampa; S. R. Mallory Kennedy (Class 1905), Pensacola.

Georgia—Ralph M. Thomson (Class 1898), Savannah.

Illinois—Wm. A. Evans (Class 1891), Chicago.

Kentucky—L. S. McMurtry (Class 1873), Louisville; Fayette Dunlap (Class 1879), Danville; David Barrow (Class 1880), Lexington; D. M. Griffith (Class 1888), Owensboro.

Louisiana—W. Glendower Owen (Class 1880), White Castle; A. J. Perkins (Class 1888), Lake Charles; Randall Hunt (Class 1889), Shreveport; A. F. Barrow (Class 1890), St. Francisville; Chas. McVea (Class 1893), Baton Rouge; C. J. Gremillion (Class 1897), Alexandria; Robt. W. O'Donnell (Class 1900), Monroe.

Mississippi—Hyman H. Folkes (Class 1894), Biloxi; E. F. Howard (Class 1897), Vicksburg; Cecil Champenois (Class 1898), Meridian; Chas. T. Chamberlain, Jr. (Class 1902), Natchez; Harley R. Shands (Class 1905), Jackson.

Missouri—McC. Johnson (Class 1890), St. Louis.

North Carolina—W. T. Parrott (Class 1899), Kinston.

Oklahoma—Chas. W. Heintzman (Class 1899), Muskogee; I. B. Bartle (Class 1901), Augusta.

South Carolina—W. E. Pelham, Jr. (Class 1905), Newberry.

Tennessee—F. D. Smythe (Class 1891), Memphis; Percy W. Toombs (Class 1905), Memphis.

Texas—Amos Graves (Class 1868), San Antonio; Geo. H. Lee (Class 1888), Galveston; Oscar L. Norsworthy (Class 1895), Houston; J. J. Dean (Class 1897), Waco; W. W. Samuels (Class 1902), Dallas.

It was decided to circularize the entire Alumni list of the Medical Department with a view of obtaining the sentiment of the Alumni with regard to the proposed memorial and to obtain subscriptions sufficient to carry out the purposes aimed at. It was hoped that the response would bring in a subscription of not less than fifteen to twenty thousand dollars, with which, at the time, it would have been possible to have raised a similar sum from a certain public fund. The total could have erected a dormitory on the Tulane campus, the income from which would have been sufficient to have paid for the maintenance of a laboratory of physiology or of hygiene, or could have contributed to the salary of the incumbent in such a chair. The result of the appeal for subscriptions, however, totaled only $2,718, which made the original intention of the Organization Committee impossible.

The plan for holding a memorial at the time of the commencement of 1908 was concurred in by all of the Alumni who responded to the circular of inquiry, and the Jubilee celebration was undertaken and consummated on the night of May 19, 1908.

The Jubilee was conducted under the auspices of the Alumni Association of the Tulane University of Louisiana.

The program included a report on the Chaillé Memorial and Jubilee by Dr. I. I. Lemann, president of the Alumni Association of the Tulane University of Louisiana; an address by the president of the university, Dr. E. B. Craighead; an address in behalf of the Board of Administrators of the Tulane University by the Rev. Beverly Warner (now deceased); remarks by a representative of the Governor of the State; an address on the contribution of Dr. Chaillé to medical jurisprudence by the Hon. Frank A. Monroe; an address on Dr. Chaillé as a medical organizer, by Dr. Lewis S. McMurtry, of the Class of 1873; an address on Dr. Chaillé as a sanitarian, public hygienist, etc., by ex-Surgeon General George M. Sternberg, U. S. A.; an address on Dr. Chaillé as the master lecturer

and honored teacher, by Dr. Paul T. Talbot, of the Class of 1908; an address as an appreciation in behalf of the Medical Faculty on Dr. Chaillé as dean, colleague, leader in medical education and man among men, by Professor E. S. Lewis, M. D., of the Medical Faculty.

The exercises concluded with an address by Dr .Chaillé himself, reviewing his relation to the Medical Department, general affairs, and especially with relation to his associates.

As each of the addresses have appeared in print, they are not reproduced here.

The success of the Jubilee was due to the interest of the Alumni of the Medical Department as represented in a committee made up of men from all parts of the United States.

At a formal meeting of the Executive Committee, held before the memorial fund was undertaken and the Jubilee planned, it was directed that the Secretary and Treasurer should collect all funds and deposit the same in the German-American Savings Bank and Trust Company, with the understanding that temporarily all funds should be deposited in the checking department, and, as these grew sufficiently in size, that all except sums necessary for current expenses should be transferred to the interest-bearing department. It was also voted that no funds should be withdrawn except upon the two signatures of the Chairman and the Secretary-Treasurer of the fund.

Acting under the directions of the committee, and co-operating with the various committees related to the Jubilee, the instructions of the committee were carried out. The funds of the department were deposited as ordered, and as soon as the books were balanced after the Jubilee celebration the bulk of the funds remaining was deposited in the interest-bearing department of the above bank.

The trial balance which follows shows in detail the amount of moneys collected, with accrued interest and the expenses as incurred.

As a part of this report, and following it, is submitted a list of the contributors.

It is the desire of the Executive Committee of the Chaillé Memorial Fund that there should be some direction on the part of the contributors to the fund as to the final disposition of the same; it is believed that it would be possible in time to increase the amount of the fund so as to fulfill the original intention.

Now that the much-beloved and revered Dean of the Medical Department has passed away, it would be even more fitting that the department over which he presided so long should be established under his name. The development of hygiene in the South would argue for the application of the fund to this particular field, and it would be possible to equip a laboratory in the Medical Department of the Tulane University of Louisiana devoted to the teaching of hygiene for the sum of fifteen or twenty thousand dollars.

The Executive Committee recommends that the further solicitation of subscriptions be undertaken with a view to this, and the co-operation of all alumni is asked. Respectfully submitted,

A. L. Metz, M. D.,
Chairman;
F. W. Parham, M. D.
E. D. Martin, M. D.,
I. I. Lemann, M. D.,
R. Matas, M. D.,
Chas. L. Eshleman, M. D.
Isadore Dyer, M. D.,
Secretary-Treasurer.

TRIAL BALANCE, CHAILLÉ MEMORIAL FUND.

1.	Subscription account		$2,718.00
5.	Interest account		263.96
7.	Exchange and discounts	$ 6.05	
9.	Expense Account—Postage	140.78	
11.	Expense Account—Stationery and printing	340.90	
15.	Advertising Account—Jubilee	12.60	
17.	Cash Account	2,330.63	
		$2,981.96	$2,981.96
	Balances:		
In	German-American Savings Bank and Trust Company—Checking account	$	134.30
In	German-American Savings Bank and Trust Company—Savings account		2,196.33
			$2,330.63

Address in Behalf of the Medical Faculty of Tulane University, Presenting a Bronze Bust of Dr. Chaille.

By Dr. RUDOLPH MATAS, New Orleans.

The distinguished speakers who have preceded me have reviewed in eloquent terms the life, character and labors of the extraordinary man who, as Stanford Emerson Chaillé, stamped for all time his imperishable personality on the medical history of Louisiana. They have acquainted you with his achievements, and in so doing have demonstrated that, in losing Dr. Chaillé, Nestor of the medical profession, not only did the medical men of this State lose one of their most illustrious leaders, but that the community had been deprived of one of its foremost citizens. If he was pre-eminent as an educator, eloquent as an orator, forceful and lucid as a writer, penetrating and illuminating as a scientific investigator, great as a leader, he was still greater as a citizen and in his devotion to his people, the people of the South, whom he loved with fervid patriotism.

The orators of the evening have acquainted you with the reasons why the State Medical Society, as the authorized representative of the medical profession of Louisiana, have deemed his services to the profession and to the Commonwealth of such magnitude and transcendent worth that they, departing from all precedent, have dedicated the greater part of one of its annual sessions to his memory—designating this memorial evening as "The Chaillé

Night." Due reference has been made to the Chaillé Jubilee celebration, held under the auspices of the Tulane Alumni Association on the night of May 19, 1908, when, after half a century of unsurpassed usefulness and unremitting toil in the services of his alma mater, the official career of the illustrious Dean was, by his retirement, brought to a close amid a pean of praise and a spontaneous outburst of enthusiastic admiration which will remain for all time memorable as the greatest demonstration of approval ever accorded a medical man in the annals of this historic city.

The representatives of the State, including the executive, the law and the church, and the foremost educators, vie with each other and with distinguished guests from distant parts of the country, with his colleagues, pupils and friends in testifying their esteem and respect for the great leader whose name had added fame and exalted the reputation of the medical profession of the Commonwealth.

In truth, it was a great occasion which called us together on that memorable night when, at the end of a long and distinguished career, those who have labored with or alongside of a man, who have been his pupils, his associates, his colleagues, and even those who have been his opponents, who have held antagonistic positions or who have vied with him in generous rivalry, voluntarily meet to testify their friendship and to mark their appreciation of his life. It is, indeed, a memorable event, not only to him, but to his calling. And we gave all that we had to give. "We could not bestow upon him an order of merit such as a government in some country might bestow; no knighthood, no Order of the Bath, no ribbon of the Legion of Honor; no iron cross could we place on his breast. Nor could we crown him with a civic crown, with its apropriate inscription, *Ob Cives Servatos.*" Yet the crown of the triple oak, accorded to him then by the representatives of his own profession for a life of valuable services, was no less a mark of pre-eminence because it would have to rest invisibly on his brow.

It might be said that the claims of our beloved Dean had been summed up that night before the bar of professional and public opinion, and his claims, not alone for that day, but for posterity, were presented by his eloquent advocates with greater earnestness because they felt the consciousness of an assured verdict.

While the semi-centennial jubilee marked the close of Dr. Chaillé's active career as Dean and professor in the Medical Department, his retirement did not abate his interest, devotion and love for the institution with which he had indissolubly linked his life and professional fortunes; nor did his interest in the progress and welfare of the medical profession languish even in the midst of his increasing infirmities and the handicap of a tormenting malady which was gradually and insiduously foreshadowing the approaching end. Indeed, the welfare of the college and of the profession claimed his best thought and most earnest effort to the end.

His last public utterances, at the dedication of the new building of the Orleans Parish Medical Society, on March 13, 1911, a little over three months before his death, fully attest that his mind had not lost any of its wonted vigor and brilliancy, notwithstanding the ravages that age and increasing conflict with disease had inflicted upon his once vigorous and elastic constitution. How full of wit, of wisdom and historic reminiscences and fascinating eloquence was that speech—a speech that will never fade in the memory of the vast gathering of delighted and admiring men who listened to it. When he delivered this notable address, which was prophetic of his approaching end, he had passed the eighty-first milestone in the journey of life. This last public appearance, and the effort required in the preparation of the historic data, appeared to have exhausted him, and he found it every day more difficult to leave his apartments in quest of the outdoor exercise which throughout his life he had regarded as indispensable to maintain his vigor and strength. It was my sad privilege to sit by him in his declining days and to watch, helplessly, with other devoted colleagues, the protracted and heroic struggle against the inexorable advance of the insidious and mortal malady which had allied itself with the decrepitude of age, to sap and mine the very foundation of his being. Everything suffered except that great brain, which stood, like an eagle perched upon an inaccessible peak, grim and unmoved by the contemplation of the ruin and desolation that surrounded it.

Ever lucid and painfully conscious, his alert mind noted the minutest change that occurred daily and hourly until he lapsed into his last and restful sleep. His system and method of recording the physiologic and pathologic events of the day, as preserved in a

large note-book, is still a unique souvenir, distinctly characteristic of his painstaking methods and of his methodical habits of mind. And the clearness of his judgment and constant effort to eliminate the personal equation in determining the significance of every new symptom or manifestation of his disease are equally characteristic of his character. He tried to analyze himself with all the deliberation and calm of an outside observer, and in this he succeeded. In all matters of doubt, he sought the advice of the highest available authorities, and, after weighing all the evidence offered him, finally arrived at his own conclusions, which were usually unassailably judicious and final.

The record of his observations in his own clear handwriting is itself a most conclusive evidence of his extraordinary keenness of observation, his indomitable courage and unshakable determination to fight the enemy with every available weapon and every tactful advantage that human intelligence could bring to his relief. In this purpose he did not falter or repine. He retreated slowly and majestically, measuring every inch of ground, constantly scanning the face of the enemy, and, though he succumbed, he seemed to conquer. His sun went down peacefully on the eve of the fated 29th day of last May, but it sank amid the prophetic and effulgent radiance of an eternal dawn. Thus passed away the great soul which, during the lifetime of generations, had illumined countless minds with its radiance and had warmed the hearts of thousands with the vitalizing energy of its unfailing and responsive pulsations.

Nearly a year has elapsed since our noble leader and friend has left us, and the messages are still warm with the breath of sympathy which have come to his friends and relatives from all parts of the nation—South, North, East and West—to prove that the country at large had heard the crash when one of the strongest pillars of our educational edifice had fallen. Even from across the seas, from far-distant lands, word has come, telling us that keen and apreciative observers had noted that a great beacon light had been extinguished in our midst.

In view of these facts, it is meet and proper that the Executive Committee of the Tulane Alumni, intrusted with the Chaillé Memorial Fund, should have availed itself of the opportunity offered by this large gathering of the associates, pupils and friends

of Dr. Chaillé to report to you the progress of their efforts to suitably and usefully perpetuate his memory in this community, as well as to submit to you their hopes and aspirations for an early consummation of their plans based upon your prompt and generous response to their appeal.

Inspired by the same grateful spirit that pervades this occasion, the faculty and teaching corps of the Medical Department have availed themselves of the gracious invitation extended to them by the State Society to participate in the proceedings of this "Chaillé Night." And, as a fitting epilogue to the evening's exercises, fraught with so many precious memories, they will profit by this auspicious occasion to dedicate and unveil a portrait bust in bronze which shall reproduce as faithfully as the cunning and skilled hand of a master craftsman in the art of sculpture will permit—the noble, inspiring and commnading lines which so conspicuously marked the visage of the late Dean as a leader among men.

In presenting this memorial bust to the Medical Department of the Tulane University, the donors—his former colleagues, associates, co-workers and friends in the faculty—would now recall, for the benefit of those who are not familiar with the history of this college, that Stanford Emerson Chaillé began his professional connection with the Tulane University of Louisiana in March, 1850, when he enrolled as one of the matriculates, thereby casting the first link of the unbroken chain of love and devotion which bound him to his alma mater during the remaining sixty years of his pre-eminently useful life. We are also reminded, by the resolutions adopted by the faculty on August 9, 1911, that "he taught ten years as demonstrator of anatomy (1858-1867), one year as lecturer and professor of obstetrics (1865-1866), forty-one years as professor of physiology and pathological anatomy (1867-1908), and finally, when elected Dean of the Faculty in 1885, he discharged the onerous duties of this office twenty-three years (1885-1908), in addition to the teaching of physiology, pathological anatomy and hygiene, which he brilliantly expounded from his three different chairs. He thus, after a half century of active service, during which he helped to educate over 3,400 of the alumni, closed his official career as an educator and administrator, leaving behind him an unparalleled record of success, which exalted the reputation of

this college as an institution of learning." We are also reminded that, as "demonstrator, professor and Dean, he devoted the labor of his life, and made the prestige and prosperity of the Medical Department the goal of his ambitions; and finally, during the three years following his retirement, his solicitude for the welfare of the Medical Department never waned until all thought had been extinguished by death on May 27, 1911."

Furthermore, while busy as a teacher he displayed an untiring industry and productiveness as a contributor to the literature of his profession, even in the midst of the most distracting occupations. As a writer, his published contributions, amounting to over 160 known references, cover a multitude of subjects that relate not only to medicine and the allied sciences, but to great public questions. Some of these are large and elaborate treatises, essays and addresses, all attesting to his varied and immense knowledge, his mental breadth and comprehensiveness of view, his vigorous precision of the statement of facts, as well as the same lucidity of expression and charm of style which made the written word almost as attractive as his spoken utterances. While this large bibliography only partially represents the sum of his literary activities, it amply establishes Dr. Chaillé's claim to enduring recognition as an authority of national reputation in State medicine, medical jurisprudence, medical organization, tropical hygiene, sanitation, especially in reference to yellow fever; medical education, and in everything appertaining to medical sociology and demography, in all of which he was largely guided and stimulated by his incessant desire to improve and benefit the medical profession and the people of Louisiana and of the South.

* * * * * *

As members of this faculty we realize that no monument that we may build, no honor that we may render, no eulogium that we may utter, can reach into that far-off mysterious realm to which the spirit of the mighty dead has gone. But the living may be taught by a great example, and ambition may be stirred in those who are to follow us by the contemplation of such an inspiring life as that of this man, truly great in the accomplishment of noble deeds and worthy purposes.

The greatest of historians told us two thousand years ago "the

bodies of men are perishable and mortal, so likewise are their statues, but the mind is eternal, and can never be preserved by any foreign material or art, but only by the real character and behavior of the persons who imitate it."

The Northman's image of death is finer than that of other climes. No skeleton, but a gigantic figure that envelops men within the massive folds of his dark garment. Chaillé, a giant himself, still stands unshrouded before us. Yet, as the dark robe draws around him, it is plain that there is much that even that ample fold shall never hide—the recorded wisdom, the great example, the persuasive tongue, the phosphorescent, luminous brain.

"They speak of monuments!
Nothing can cover his high fame but heaven—
No pyramids set off his memories,
But the eternal substance of his greatness!

"When such a spirit away from earth has fled—
With all his power of deed and of desire,
When now no more the anointed lips respire,
And low at last has drooped the imperial head.

"O Nature, let thy stars his vigils light,
Thy winds the music of his requiem stir!
Then lift him in thine arms and lay him down,
Sublimely where the cloisters of the night
Shall be his Archangelic sepulchre."

American Medical Association.

Section on Dermatology.

Reported by Dr. Isadore Dyer.

Aside from a most excellent address on "The Shortcomings of Dermatology," by the Chairman, Dr. Charles J. White, of Boston, little of general interest appeared in this Section.

The joint session with the Section on Pathology brought out some excellent exhibits of Noguchi, who demonstrated a number of new spirochetes. Dr. Abner Post, of Boston, read a timely paper on the use of salvarsan, advising its limitations and its specific usefulness—but urging the better knowledge of other well-known remedies already long in use.

Dr. H. P. Towle, of Boston, in the post session of the Derma-

tological Section, had an interesting paper on infantile eczema in its relation to indigestion. The laboratory work incidental to the studies of cases reported made the paper important and opens up the study of stubborn cases of infantile eczema related to indigestion—particularly of the fats and sugars.

Dr. Corlett, of Cleveland, Ohio, had a paper on syphilis related to its treating and to hospitals, which provoked interesting discussion—finally resulting in a resolution that a committee be appointed to study the methods of treating of syphilis and the hospital cure, and to report at the next meeting of the Section in 1913. The motion prevailed by unanimous vote, and Drs. Corlett, Post and Dyer were appointed.

The officers elected for 1912-13 were: Chairman, Dr. Joseph M. Zeisler, Chicago; Vice-Chairman, Dr. H. R. Varney, Detroit; Secretary, Dr. Howard Fox, New York.

Section on Obstetrics and Gynecology.

Reported by Dr. C. Jeff Miller.

The proceedings of this Section were extremely interesting, owing to the wide range of the subjects presented and the liberal discussion of the papers.

The thirty-seven papers presented may be grouped under three or four general heads, viz., the various phases of puerperal infection, including the conservative versus the radical treatment of puerperal processes; the complications of pregnancy, proteid metabolism, nephritis, appendicitis, tuberculosis, cholelithiasis, cardiac disease, and the methods of delivery in difficult and dangerous labor.

Another group contains miscellaneous papers on technic, conservative surgery of the ovary, and some interesting papers on internal secretion of the ovary.

One of the most interesting papers read was by Burnam, of Baltimore, on "Corpus Luteum Extract," with suggestions as to its use in gynecologic practice. He related the details of extensive experimental work and the favorable results obtained in a considerable amount of clinical material. The extract had been used in cases of amenorrhea of functional nature with very good results; in artificial and natural menopause; in controlling vaso-motor and other symptoms; neurasthenia and nervousness before menopause and in dysmenorrhea with varying results.

The discussion was opened by John M. Rogers, of New York, who presented a comprehensive diagram of the physiology of internal secretions of the ovary and pointed out the complex interrelation of the various secretions with special reference to the thyroid and ovary. The subject was further amplified by Chas. Mayo, who devoted his remarks more particularly to the thyroid gland and the close relation in early life between the thyroid and uterus.

In arranging for the opening of discussion on the various papers, the officers of the Section departed from the usual custom and invited internists, general surgeons, orthopedists and laboratory workers, with the idea of broadening the scope of the discussions. The plan proved successful beyond expectation. By this means the Section profited by the discussion of Minor, of Asheville, on pulmonary tuberculosis complicating pregnancy; Stengel, of Philadelphia, on cardiac complications of pregnancy; Murphy, on appendicitis complicating pregnancy and labor; and Osgood, a well-known orthopedist of Boston, added materially to the value of Dickinson's excellent paper on "Attitude and Trunk Development in Its Relation to Pain."

Another paper well worth mention was read by Chalfonte, of Pittsburg, on "Acetonuria: Its Relation to Post-Operative Vomiting." The author believes acetonuria due to carbohydrate starvation and has stopped purging and restricting the diet in the preparation for operation. This paper caused considerable discussion and should be carefully read by every surgeon.

The attendance upon the Section meetings was much larger than usual.

A point of interest to those who affiliate with the Section of Obstetrics and Gynecology is the change of name of this Section. By a resolution adopted by the Section, the House of Delegates was petitioned to add abdominal surgery to the above title. This was acted upon favorably, so in future the Section will read Obstetrics, Gynecology and Abdominal Surgery.

The officers elected for next year were: Chairman, F. F. Simpson, of Pittsburg; Vice-Chairman, Jos. B. DeLee, of Chicago; Secretary, H. Auspach, of Philadelphia.

Section of Ophthalmology.

Reported by Dr. M. Feingold.

As usual, the Section of Ophthalmology enjoyed a large registration, about 400 having registered at the end of the second day. All sessions were well attended. The character of the papers was of the highest, several of them being of such importance as to stamp this session as an important one in the history of ophthalmology.

Dr. J. W. Barrett, of Sidney, Australia, was a guest of the Section and took part in some of the discussions.

The address of the Chairman, Dr. Adolph Alt, of St. Louis, dealt with a report of a case of sympathetic Choroiditis, reviewing this important subject and alluding to the work done by him in former years.

A case of sympathetic optic neuritis was reported by Dr. E. S. Thomson of New York. The first two papers on the program dealing with similar subjects were those of Drs. de Schweinitz and Holloway, of Philadelphia, and George S. Derby, of Boston, concerning eye lesions due to the affection of the hypophysis and mixedema, respectively. The difficulties of explaining some findings in the field of vision brought out some interesting points.

The papers of Dr. Arnold Knapp, of New York, and Dr. Martin B. Tinker, of New York, dealt with the Kroenlein operation and its modification as proposed by Tinker and based upon his anatomical study of the distribution of the facial nerve. The consensus of the discussion was that the original Kroenlein operation leaves, in most instances, only a slight scar and little deformity, which disadvantages are counterbalanced by the ease of the exploration of the orbit and facility of removal of tumors from behind the eye. Tinker's modification of the incision and details of the operation would further improve the ultimate results.

Dr. Walter D. Weidler, of New York, reported a rare affection of the eye: pemphigus, with review of literature on this subject.

The paper of Dr. E. J. Jones, Cumberland, Md., dealing with the therapeutic effect of subconjunctival injections, as advocated by Darier and others, reports rather favorable results from injection of cyanide of mercury in solutions of rather high percentage. In the lively discussion on the subject, the point mentioned by the essayist that the injection was painful and quite alarming

at first sight, was dwelt upon at length. The patient must be apprised of the tremendous reaction following these injections; adhesions form between conjunctiva and sclera at points of injections.

The paper of Dr. H. D. Bruns, of New Orleans, on the etiology of phlyctenular ophthalmia dealt with the fact that a certain percentage of the cases with phlyctenular opthalmia do not give the Calmette nor the Von Pirquet reaction. From this the conclusion is drawn that phlyctenular affections must be due, at least in some instances, to some other factor than tuberculosis, such as intestinal disturbance. The long and exhaustive discussion of this question proved that the majority of the speakers, among them men of great experience and keen observation, sided with the essayist in his views.

Dr. W. E. Lambert, of New York, reported some unusually good results following the removal of the lens for high myopia. In the discussion an interesting case was reported: the patient was subsequently very dissatisfied with the fact that she needed glasses to do near work in spite of the good vision that she otherwise had.

Dr. Wm. C. Posey, of Philadelphia, offered a study of the anatomy of the antrum of Highmore in children and the possibilities it contained for affection of the eye, orbit and its surrounding bones: osteomyletic, necrosis, etc. Reproductions from Onodi's recent book on the anatomy of the accessory sinuses in childhood were shown upon the screen.

Dr. F. H. Verhoeff, of Boston, showed micro-photographs from cases of glaucoma of different origin (primary, iridocyclitis, etc.) in all of which the angle of the anterior chamber was perfectly free or nearly so. All sections showed sclerosis of the pectinate ligament, but proved at the same time that some time previously peripheral anterior synechiæ had been in existence or were in the act of being broken up, thus proving that Henderson's theory of primary sclerosis of the pectinate ligament as a cause of glaucoma still had to be demonstrated. This paper must be considered a valuable contribution to the study of this mysterious disease.

Dr. Casey A. Wood, Chicago, in reporting several cases of nasal hydrorrhea with different eye symptoms, dwelt on the fact that hydrorrhea is not a definite disease but a symptom of several affections, such as brain lesions, hydrocephalus, etc. Only in this

way can some of the cases that show such serious involvement of the eye, such as optic atrophy, scotomata, etc., be explained.

Dr. Albert E. Bulson, of Fort Wayne, Ind., insisted that "No arterio-sclerosis exists without an accompanying involvement of the kidney to a more or less extent." It is, therefore, incumbent upon the oculist, who is often the first to discover the beginning arterio-sclerosis, to get the proper treatment for the patient. In this way many a life will be prolonged and eyesight often saved. The many symptoms of early sclerosis of retinal vessels are mentioned. The paper as well as the discussion dwelt on the importance of taking the blood pressure in all of these cases.

The paper of Dr. Wm. Zentmayer, Philadelphia, on "Visual Disturbance from Distant Hemorrhages," contains two cases and review of the literature on the subject. The hemorrhage often occurring from intestines, stomach or uterus; the eye symptoms following at shorter or longer intervals are manifold: peculiar affections of the visual field, at times negative fundus condition, at other times inflammation and atrophy of the optic nerve. Different theories were discussed by the essayist and the members in the discussion.

On cataract several papers were read.

Dr. E. C. Ellett, of Memphis, on "Cataract Extraction with Corneal Suture," reported a number of cases operated according to the method of Kalt in Paris. Suture is to be passed through cornea and sclera near the limbus before the incision is made; needle and silk must be of special fineness; the needle passes only through one-half of corneal thickness and through some layers of the sclera. In the discussion the similar operation of Dr. Williams, Sr., of Boston, practiced about fifty years ago, was brought out, also some modifications of the Kalt stitch.

The paper of Dr. Percy Friedenberg, of New York, showed the advantage of preparatory capsulotomy in immature senile cataract as devised by Homer Smith. The capsulotomy is made about twenty-four hours before the extraction; the delivery of the lens is then considerably facilitated, though it may not have become entirely opaque as yet, the lens usually coming out entirely and leaving no cortex behind; in this way the operation is shortened and gives better results. The consensus of the discussion was in favor of this procedure.

The "Suggestions Regarding Some Points in the Technic of Cataract Extration" of Dr. Samuel Theobald bespeaks the man of long experience and good observation. He prefers a broad Graefe knife to lessen the chance of iris falling in front of the knife; conjunctival flap is desirable; in iridectomy he prefers his iris scissors because its curve can be better adapted to the eyeball; he advocates a long vertical incision in the capsule with a short horizontal one: it is best not to be too insistent in the removal of every trace of cortex.

Drs. D. W. Green and J. M. Millette, of Dayton, Ohio, tabulated their results in 203 patients after the Smith operation for cataract: Three eyes were lost by purulent infection; 1 by iridocyclitis; 7 patients had only light perception, this result is attributed to several causes and only in two instances to excessive loss of vitreous. Of the remaining number of patients, 101, equaling about 50%, had vision of 20/20 or better; 61, or about 35%, had vision of 20/30 to 20/50; 20 had vision between 20/80 and 20/200. 13½% of loss of vitreous occurred where vision has been tabulated above. Separate tables show that vision was very good in a number of cases and even normal and above normal in some cases, in spite of the loss of vitreous.

Dr. F. P. Calhoun, of Atlanta, reported four cases of cataract in young individuals with uncinariasis.

Dr. Lucien Howe, of Buffalo, N. Y., dealt with the application of graphic methods for the measurement of fatigue of the ocular muscles: The patient is looking at a distant light through a rotating double prism; the strength of the prism is increased until double vision occurs when the prism is brought back to the zero point; then against the strength of the prism is increased until double vision occurs and then again returned to zero; this process is repeated several times; the changes occurring in the strength of the prism are automatically recorded on a rotating drum. The examination of the curve thus obtained proves that after the first appearance of double vision, it takes gradually less and less strength of the prism to produce double vision, clearly demonstrating fatigue of the ocular muscle. The curve varies from individual to individual and has relation to the general status of the examinee. The paper opened up a vista of many interesting problems. Dr. Howe alluded to the application of similar graphic methods in the fatigue of the intra-ocular muscles.

Dr. Hendell Reber, of Philadelphia, reported his study of 100 normal eyes with the tropometer. His results all tally with those of Stevens and the total average of older observers who worked only with the perimeter. The special value of the tropometer in the study of strabismus has explained some apparent incongruities.

Dr. Alexander Duane, of New York, brings the final results of the work begun some two or three years ago, consisting of the exact measurement of the range of accommodation. The painstaking and tedious work is practically a confirmation of the work of Donders, done so many years ago. In the whole the curves of Donders and Duane show some differences and it is remarkable how near the curve obtained by Donders comes to the one obtained by Duane when we consider that Duane's patients had even the slightest errors of astigmatism corrected before measurements were taken, while in Donders' time the value of correct refraction was not sufficiently known.

Dr. John A. Donovan, of Butte, Mont., dealt with the interesting problem of how we are enabled to shoot at a target since we cannot simultaneously see target and gun sights distinctly. How is aiming accomplished? Enumeration of the different theories; how to correct errors of refraction and presbyopia in marksmen; what was found most beneficial in the essayist's practice. In the discussion the different views held by different army officers were brought out and experiences related.

Dr. J. C. Bossidy, of Boston, reported a unique case of uniocular polyopia existing in each eye of a hysterical girl where the polyopia existed even after application of cyclopegics.

Dr. Burton Chance, of Philadelphia, reported several cases of Morgagnian cataract, pointing out the difficulties attending such operations and urging operation before hypermaturity sets in.

A short time on Wednesday, before the reception to the President, was devoted by the Section to listening to a masterly paper by Dr. Edward Jackson, of Denver, Colo., embodying all desiderata concerning the training of the future ophthalmologist. It is acknowledged that the present methods of training, and still more the older ones, before entering this special branch, are inadequate. An outline is given of what should be accomplished before special practice is taken up.

(The Section of Ophthalmology of the Southern Medical Asso-

ciation, at the last meeting held in Hattiesburg, adopted resolutions of a similar tenor.)

As officers of the next session were elected: Dr. Hiram Woods, of Baltimore, Chairman; Dr. George S. Derby, Secretary. The retiring Secretary, Dr. Thomson, was elected Vice-Chairman.

Section on Oto-Laryngology.

Reported by Dr. Homer Dupuy.

The Chairman, Dr. Schambaugh, in a timely, trenchant and spirited address, so unlike the stereotyped and embalmed product usually served in annuals, sounded the note of warning relative to the alarming overproduction of pseudo-specialists. The field of oto-laryngology presents problems in pathology, diagnosis and treatment, added to which are technical difficulties, which call for the widest experience and the highest ability on the part of those who aim at becoming bona fide specialists.

The mushroom product of a six weeks'—more or less—post-graduate course is a mere dilettante, and as such must be discouraged. The remedy for overproduction and for the protection of the innocent public is, to require adequate training during a period of two or three years in large hospital clinics under the guidance of men of recognized ability. This period of education and solid preparation for one's life-work might culminate in the awarding of a degree granting privileges to practice oto-laryngology. (It is noteworthy that the Section on Ophthalmology and oto-laryngology of the Southern Medical Association at the Hattiesburg meeting—1912—has already initiated a movement along the same lines.)

A titanic struggle was precipitated when the question of perennial interest, hay fever, was introduced. That tripod of etiologic factors, first, pollen of certain grasses; second, a peculiarly susceptibe mucosa of the upper respiratory tract; third, a neurotic disposition, again received the strongest support. Accessory sinus troubles which are often observed in hay fever subjects is the common sequel not the cause of this affection. Dunbar's Pollantin treatment, while not a specific, should at least be credited with materially assisting in differentiating true hay fever, Pollinosis, from the various forms of nasal hyperesthesia which simulate it. One drop of the pollen toxin applied to any absorbing area will bring out the usual eye

and nose symptoms in a susceptible individual. During these attacks swelling of the nasal mucosa causing defective drainage might lead to the end-result of a sinusitis. While the question of causation seems to be permanently settled, a positive cure for hay fever is still a desideratum.

A symposium on intracranial complications of otitic origin brought out lengthy discussions the gist of which were that the close relation existing between middle ear suppuration and brain abscess gives to otitic abscess an overwhelming predominance in character as compared with abscesses of other origins. A neurological examination was undoubtedly helpful. The supreme difficulty lay in the interpretation of the symptom complex. Atypical cases are the rule. In fact, all symptoms of an abscess may be present and yet no abscess can be found, or *vice versa.* Great stress is now laid on a form of aphasia, lapse in the naming sense, as indicative of a temporo-sphenoidal lobe abscess on the left side. Vomiting, vertigo and nystagmus, on the same side as the suppurating ear, localizes the abscess on the corresponding side. We are still treading on uncertain ground when we attempt to localize the seat of the trouble as being either in the cerebrum or cerebellum. It is now conceded, however, that induced *Nystagmus to the diseased* side pointed to certain cerebellar involvement. The classical pressure-sympton picture appears too late to accept it as the signal for operation. The erstwhile sacred precincts of the brain is not to be exempted from the exploratory procedures of other regions.

It was astonishing to learn from some of the more daring surgeons with what impunity, under aseptic precautions, the brain could be incised in many localities at the same time. Nothing less than extensive incisions seemed justifiable when searching for a suppurating focus in the brain. This focus once found, a large opening, with several cigarette drains through rubber tubes, is more effective than gauze packing, which interferes with drainage.

Asthma, one of our Rubicons, had some light thrown on it by deductions from 200 cases. We have broadened out sufficiently in our conception to admit that symptoms of asthma are due to reflex influences emanating either from the stomach, the intestines, or nasal mucosa. Anaphylaxis would seem to be the sole explanation in some cases. The omnivorous rhinologic surgeon is asked to spare the nose when the indications do not clearly point to IT as the

originating point of the reflex. Even then he should proceed conservatively. Moreover, there is a psychologic component in asthma which must not be ignored. There still exists a justification for direct local applications. But the problem of causation is too complex to focus all our endeavors on them.

Freer, of Chicago, gave a masterly demonstration of his perfected method of submucous resection of the nasal septum. He pointed out that a danger lurked in the Ballenger swivel knife, too much septal cartilage being removed, post-operative permanent deformities on the outside nose resulted. The discussions corroborated this view and suggested to the tyro that in submucous work angels might fear to tread. Such an attitude might spare the natural contours of the human face, and would certainly save the operator from well-deserved criticism.

The treatment of chronic laryngeal stenosis received serious consideration. While the last word may not yet have been said relative to its successful treatment, any method which held out even a promise of success was most welcome. The specially devised intubation tubes with the LOW RETAINING SWELL were commended as a distinct advance. There was no dissent in the condemnation of tracheotomy in the chronic form of stenosis in children. It adds deformities and cicatricial changes in the treachea and positively retards or renders impossible the ultimate dilatation of the strictured area.

Tonsillectomy brought out the usual effervescent discussions as to individual methods. Formidable-looking instruments were shown with which to attack the unsuspecting tonsil. Dissection, leaving the choice of methods to the individual operator, still holds good as the most reliable surgical procedure.

SECTION ON PREVENTIVE MEDICINE AND PUBLIC HEALTH.

Reported by Dr. Creighton Wellman.

The papers of this Section, which was under the chairmanship of Surgeon General Rupert Blue, of Washington, D. C., were largely given up to statistical and administrative aspects of public health.

The President's address was an able and broad presentation of the great problems of public health in this country and was fol-

lowed by a group of papers on statistical and financial problems in public health.

A notable paper was one on the "Standardizing of Health Board Statistics," by Le Grand Powers, of Washington, D. C. Among the papers dealing with methods of handling expenditures was a most sane and practical discussion of a "Cost-Finding System for Health Departments," by W. F. Snow, of Sacramento, Cal.

The second day was given over to a symposium on "Industrial Diseases," the Section meeting in joint session with the American Association for Labor Legislation.

The third day was devoted to a symposium on "Antiseptics and Germicides" in a joint meeting with the Section on Pharmacology and Therapeutics.

The fourth day was devoted to papers on water supplies, and the last day to miscellaneous papers, including a symposium on antityphoid inoculation.

During the meeting resolutions were passed advocating hygienic education for women and favoring standardization of disinfectants and the adoption of standard methods for their testing. A committee was appointed to investigate the influence of poverty upon disease in the United States.

In general the discussions were too long and often carried on by members without exact knowledge of the subjects before the Section. Some of the discussions, however, were most pointed and valuable.

The Section officers for the ensuing years are: Chairman, G. L. Kiefer, Detroit; Vice-Chairman, W. F. Snow, Sacramento, Cal.; Secretary, C. H. Jones, Baltimore (re-elected).

Section of Surgery.

Reported by Dr. Urban Maes.

The meeting was called to order promptly at 2 P. M. Tuesday, June 4, 1912, in the Music Room on the Steel Pier, with Dr. Thos. W. Huntington, of San Francisco, in the chair, and the Secretary, Dr. Fred T. Murphy, of St. Louis, at his desk. All sessions were prompt and businesslike, the Chairman having announced the unbreakable rule that all papers would be limited to twenty minutes and discussions to five. This rule could only be varied by a unanimous vote of the Section.

The acoustics of the large hall were excellent. The only regettable feature was the absence of a lantern, as many readers intended illustrating their papers with lantern slides.

The Chairman's address opening the meeting was specially noteworthy, dealing with "The Hospital Problem." This title does not give one the proper idea of the scope of the paper, which dealt with "the problem" from all sides. Beginning with a short historical review, the ideal hospital conditions of the present day were taken up.

The summing up was a plea for judicial financing of institutions, for proper government and for more efficient training of medical students in hospitals, having as the ideal a hospital with university control.

Full publicity of all internal workings was advocated; also the creation of a medical committee to work in unison with State authorities. As a whole, the detailed perusal of the address would be specially valuable to us at the present time.

A motion was unanimously carried to recommend the address to the House of Delegates for its careful consideration.

The first paper on the regular program was by Dr. Geo. W. Crile, of Cleveland, who went into some detail with his theory of associations and nervous stimuli, finally working up to his point, or rather his hobby, combined anesthesia with the patient in a state called anoci association. His charts were very convincing, and showed a great diminution in post-operative mortality and morbidity after his "shockless operations." The death rate per 1000 has diminished markedly in his hands, as shown by his figures, as follows: Ether, 74; chloroform, 44; N^2 O., 24; anoci association, 16.

A symposium on thoracic surgery was next in order. The first paper, by Dr. Jos. M. Flint, of New Haven, was a series of laboratory experiments, showing the effects of various intra-thoracic procedures. The paper was illustrated with a great many tracings with the kymograph, and while interesting, was very technical, with special value to the worker in an experimental laboratory.

"Surgery of Chronic Infectious Diseases of the Lung," by Samuel Robinson, of Boston, gave a review of clinical and experimental investigations to date, dealing especially with the surgical treatment of the heretofore "medical" diseases of the lung. The

essential point is that shrinkage or pulmonary disuse (localized) is contributory to cure in most of these conditions.

"The Obliteration of Empyemic Cavities," by Dr. E. M. Von Eberts, of Montreal, was a specially noteworthy contribution. The work of Dr. Von Eberts is new and original and has to deal with the tidal and complimentary air in old empyemic cavities, which is measured by a special manometer. The treatment of both new and old cases by negative pressure was very successful in the essayist's hands. His method is certainly worthy of further consideration.

The discussion of these papers by Drs. T. T. Thomas, of Philadelphia, and Carl Beck, of Chicago, served to emphasize the main points.

Dr. W. L. Rodman's paper on "Abnormal Involution of the Mammary Gland" was largely statistical and was a plea for prompt diagnosis in all mammary tumors, and a radical operation in all doubtful cases. The cystic tumors were specially dealt with.

Dr. Bloodgood's discussion was confined mainly to cysts. He cited 107 cases, 23 with radical and 21 with partial resections, are all well to-day. The oldest operation was 30 years ago. Drs. Wathen, Porter, Parker, Syms and J. F. Mitchell all confirmed these figures.

The oration on surgery by Dr. Lewis L. McArthur, of Chicago, dealt with "An Aseptic Route to the Pituitary Body Through the Orbital Vault."

Dr. Chas. K. Mills, of Philadelphia, spoke of accurate neurological diagnosis and cited a case of aphasia and agraphia successfully operated by Dr. Edward Martin. Dr. Martin's remarks were confined to the surgical technic in cranial operations.

Dr. Alexis Carrel, of vascular suture fame, followed with his study of the "Preservation of Tissues and Its Application to Surgery." After detailing some historical data, he gave his method of cold storage preservation in vaseline and cited some successful experiments.

Dr. John Staige Davis (Baltimore) and Dr. Albee (New York) gave the matter further consideration from a clinical viewpoint, and related some highly successful clinical results.

Dr. H. S. Plummer, of the Mayo Clinic, reported 100 cases of cardiospasm, treated with his hydrostatic dilator. This paper was

remarkable for the number of cases treated, and was an elaboration of the essayist's former paper when a smaller number of cases was reported.

"Tumors of the Small Intestine," by Dr. W. D. Haggard, of Nashville, reviewed the literature and reported a large sarcoma of the ileum in a boy of 9, with successful removal, the boy remaining well for two years.

The paper on "Experimental Intestinal Obstruction," by Drs. Jno. A. Hartwell and J. P. Hoguet, of New York, was a review of experimental findings previously reported, and some evidence was brought out to show that loss of water in the vomited fluid was an important factor in causing death.

The discussions by Drs. Geo. Whipple (Baltimore), Bert Vincent (Boston), Angus McLean (Detroit), Horsley, Gray and Einhorn seem to agree with the writers, and also suggested that toxic paralysis of the splanchnic area, giving a true "shock death," was a factor to be taken into consideration.

"The Relation of the Duedenum to Surgery of the Stomach and Colon," by Dr. Jos. C. Bloodgood, was an anatomical and surgical study dealing with several mechanical factors in gastro-mesenteric ileus.

The distinguished guest of the Section, Prof. Thorkild Rovsing, of Copenhagen, gave a most interesting address lasting one hour and twenty-five minutes.

"Gastroptosis and Its Surgical Treatment" was covered from every possible viewpoint and an analysis of his 256 gastropexies. His figures follow: Complete cure, 162, 63.2%; great improvement, 33, 12.8%; improvement, 18, 7.0%; slight improvement, 32, 12.8%; deaths, 11, 4.6%.

As this paper is to appear in an early number of the *Journal,* further details will be omitted here. Its thorough perusal by any surgeon interested will certainly repay him.

"The Functions of the Large Intestine," by Dr. Walter B. Cannon, of Boston, dealt with a series of X-ray studies by means of the bismuth meal.

"Dilatation of the Large Bowel," by A. D. Bevan, Chicago; "Adhesion of the Colon," by M. L. Harris, Chicago; "Colonic Intoxication," by J. F. Binnie, Kansas City, dealt with intestinal stasis along the lines pointed out by Mr. Lane, Wilms and others.

The origin of Jackson membrane was shown by Dr. Harris to be a mild sub-acute or chronic inflammation, due to the hitherto unrecognized anaerobes.

Dr. Charles Mayo tersely replied to Dr. Bevan's attack on Mr. Lane by saying that if all were just as careful as Mr. Lane results would be just as good in their hands.

Dr. Chas. Mayo gave a beautifully illustrated paper and a statistical study with operative results of all patients presenting themselves at the Rochester Clinic with diverticula of the gastro-intestinal tract.

"The Role of the Movable Kidney in Vascular and Intestinal Stasis," by Dr. K. A. J. Mackenzie, of Portland, Ore., dealt with a clinical and cadaveric study of the causes of ptosis.

The discussion of Dr. Joel Goldthwait, of Boston, dealt with this condition from the orthopedic side. Dr. Jackson, of Kansas City, spoke of some of the *mechanical* factors.

"Further Experimental and Clinical Work Bearing on the Value of Lane's Bone Plate," by Willard Bartlett, of St. Louis; "Operative Treatment in Joint Fractures," by F. J. Cotton, of Boston; "Operative Treatment of Fractures and Dislocations," William Darrach, of New York; "The Surgery of Bones and Joints," by L. W. Ely, of Denver, dealt most with the operative treatment of fractures by means of the Lane plate. The essay of Dr. Darrach was especially valuable from his analysis of end results.

Discussions by Drs. Jno. B. Murphy, Jno. B. Walker, Jas. E. Moore, Albee, Huntington, Ochsner and McGlannan served to emphasize the following facts: Rigid asepsis, extreme care in the technic, selected cases, expert handling, operation in the second week, and strict adherence to all of the principles laid down by Mr. Lane.

"An Operation for Potts' Disease of the Spine," by Dr. Russell A. Hibbs, of New York, gave the technic and end results of an operation devised by him in permanent bony ankylosis of the spinal column. The operation is not difficult, is rational in its conception, and should certainly be tried by men in this line of work.

The discussion by Drs. Albee (New York) and Casper (Louisville, Ky.) was extremely favorable.

The afternoon session, Thursday, June 6th, was devoted to a

Symposium on Internal Secretions in a Joint Meeting with the Medical Section.

The papers enumerated below were all of great scientific interest: "The Influence of the Secretion of the Pituitary Gland," by Dr. Harvey Cushing, of Baltimore; "The Internal Secretion of the Pancreas," by Dr. J. H. Pratt, of Boston; "The Anatomic and Physiological Effect of Iodin on the Thyoid in Exopthalmic Goitre," by Dr. David Marine, of Cleveland, Ohio.; "The Functional Activities of the Adrenals," by Dr. S. J. Meltzer, of New York; "Function of the Parathyroid Glands," by Dr. Wm. G. McCallum, of New York.

Dr. Rudolph Matas was unable to be present for his paper, but Dr. John H. Gibbon read a paper on "Further Experience With Aneurysmorrhaphy" (Matas), discussing his experience in seven cases, with very favorable comment.

The discussion by Drs. Powers, Binnie, Bullock-Horsely, Major Ford, Huntington and others was very favorable and showed confidence in the procedure.

Other essays caused little comment except the paper of Dr. Gotch on certain problems in intestinal anastomosis. This resolved itself into a talk on vivisection. The Chairman took the stand that there were many needless experiments, but was forced to recede from his position on account of the great number of contrary opinions.

The Section of Diseases of Children.

Reported by Dr. L. R. De Buys.

Chairman, Dr. I. H. Abt, Chicago; Vice-Chairman, Dr. L. T. Royster, Norfolk; Secretary, Dr. J. P. Sedgwick, Minneapolis; Executive Committee, Drs. T. S. Southworth, New York; W. J. Butler, Chicago; S. M. Hamill, Philadelphia.

The Chairman's address consisted in an historic review of the classification of intestinal disease.

Dr. J. P. Crozier Griffith, Philadelphia, read a paper upon "The Ability of Women to Nurse Their Children," in which, by statistical comparison, he showed the importance of breast-feeding over artificial feeding, and the influence which the latter has upon the death rate, and the subsequent later health of children. He further

considered the reasons for the failure of breast-feeding: as to whether it depends upon actual disability or on other causes, the conclusion being that there is but little real increasing disability in the matter of maternal nursing.

Papers by Dr. J. C. Litzenberg, Minneapolis; Dr. Julius H. Comroe, York, Pa., relative to "Long-Interval Feeding," brought forth the usual discussion, the conclusions, as usual, being that no fixed rule is possible, and that every baby should be fed individually.

Dr. John Lovett Morse, Boston, in a paper entitled "Intestinal Toxemia in the New-Born," called attention to an intoxication frequently unrecognized, which is probably caused by the absorption from the intestines of toxins produced by a bacterial infection of the meconium.

Dr. Oscar M. Schloss, New York, presented a piece of original work upon "Allergy to Common Foods; Idiosyncrasy to Hens' Eggs." He classified the symptoms produced by eggs in susceptible individuals as being: (a) Gastro-intestinal; (b) Cutaneous, and (c) General. Frequently, however, the symptoms are combined. He considered the theories formerly advanced, and reported personal and collected cases. From recent experimental work upon anaphylaxis, the indication is that the underlying cause of the idiosyncrasy is protein sensitization or hyper-susceptibility. The reaction is probably dependent upon sensitization of the skin. He stated that the blood or blood serum of some cases of egg idiosyncrasy contains a reaction body capable of sensitizing guinea-pigs to egg-white; that the susceptibility to egg may be inherited or acquired; that the treatment is by the administration of the antigen by mouth, and that immunity is thus established.

The papers entitled "The Relation of the Infant Welfare Movement to Pediatrics," by Dr. Thomas B. Cooley, Detroit, and "The Value of the Social Service Department to the Children's Dispensary," by Dr. Maurice Ostheimer, Philadelphia, showed the immense amount of good to be derived from the help and education of the needy. Dr. Cooley referred to the rapid growth of the movement and its most useful present development, namely, the educacation of the mothers and young girls in the feeding and hygiene of the baby. He believed the teaching should be done according to the most advanced ideas, and warned against the possible danger in the work being taken over too early by the public health authorities.

He also called attention to the opportunities offered to the pediatrist by this work: to teach the possibility of breast-feeding; to show the availability of simple milk modification; to study feeding methods on a large scale, and to reduce infant mortality enormously. Dr. Ostheimer described the work of the Social Service Department as it is carried out in connection with the Children's Dispensary of the Hospital of the University of Pennsylvania, with the resulting greatly diminished mortality, especially in summer.

Very interesting papers were read by Drs. B. Raymond Hoobler, New York; F. M. Pottenger, Monrovia, Cal.; Fritsz B. Talbot, Boston, and Henry F. Dtoll, Hartford, Conn., upon the subject of tuberculosis considered from many of its aspects.

Dr. Thomas S. Southworth presented a paper upon the "Menace to the Young Child of the Common Infectious Cold," in which he considered the damage done to infants and young children, and the complications arising therefrom, including, otitis, pneumonia, sinus infection and interference with nutrition. He called attention to the loose terminology employed, because of the practical difficulties of making bacteriologic differentiation, and referred to the necessity for a more general appreciation of the dangers by the laity, and discussed the common modes of infection, and suggestions for their avoidance.

"Pellagra in Children" was presented by Dr. J. Ross Snyder, of Birmingham, Ala., in which he gave a history of the disease in the South Atlantic States. He considered the theories of the etiology and the frequency of its occurrence in children. He compared the symptoms and mortality in children and adults, and suggested treatment.

Dr. L. R. De Buys, New Orleans, read a paper on "Exophthalmos in Scurvy," in which he reviewed the literature briefly, and described the condition from a study of the cases reported. He presented a case, illustrating it with lantern slides, showing photographs before and after treatment, and skiagraphs showing the bone changes, one of which showed a much later stage of scurvy than has been described. He appended a tabulated study of the reported cases of exophthalmos in scurvy.

Dr. B. Raymond Hoobler, New York, in a paper on "An Automatic Device for Reading Systolic and Diastolic Blood Pressures in Children," because of the great difficulties experienced in reading

blood pressure in children by means of tactile pressure over radial artery or by means of auscultation over brachial artery, offers a device which works automatically. The device consists of a double cuff, one to fit above and the other one below the elbow. The lower cuff is attached to a modification of Fedde's Pith-Ball Indicator, so that when pulsation is permitted to pass under the upper cuff it is recorded by means of the lower cuff, and is shown by the oscillation of the pith-ball. In very small children the leg, instead of the arm, is used. He believes that, through the use of such an instrument, the personal equation is eliminated and blood pressure can be standardized.

Dr. Henry Dwight Chapin, New York, presented an interesting and instructive paper upon the "Properties, Uses and Indications of the Various Carbohydrates in Infant Feeding," describing the chemical composition of carbohydrates and the functions they perform in nutrition. He also spoke of the five carbohydrates used in infant feeding, namely, starches, dextrins, maltose, saccharose and lactose, and stated the indications for each.

Taken as a whole, the meeting of this section was a decided success, the papers presented being above the average and well worth hearing. The officers elected for the ensuing year were: Chairman, Dr. Henry Dwight Chapin, New York; Vice-Chairman, Dr. J. M. Miller, Atlantic City; Secretary, Dr. F. C. Neff, Kansas City, Mo.; Delegate, Dr. Charles Doiglass, Detroit.

The National Association for the Study and Prevention of Tuberculosis, Washington, D. C., May 30-31.

Reported by Dr. Wallace J. Durel.

Pathological Section.

The effect of lime assimilation in tuberculosis was presented by Dr. Von Geisen, of New Jersey, who based his conclusions upon experiments with three collies. Two dogs were fed with lime foods and lime salts, and one was deprived of all lime salts and foods. The lime-fed dogs, after inoculation with virulent tubercle bacilli, lived longer and showed less virulent and disseminated lesions than the dog deprived of all lime salts. This difference may, however, be due to the lighter weight of the dog fed without lime salts, and

to certain other constituents in the food, of which it was deprived. The experiment, though interesting, is on a too small scale to be of practical value.

The relation of animal fat to the tubercle bacillus, as suggesting an explanation for apical lesions in man, was presented by Dr. Wm. C. White, of Pittsburg. This paper proved very interesting, showing that, at the apex of the lung in man, certain fatty substances are more preponderant than at the base. This makes the apex of the lung a favorable location for the deposit of the tubercle bacilli—considering that tubercle bacilli are more easily cultivated upon a medium rich in fatty substances.

A bacteriological study of the blood in pulmonary tuberculosis was presented by Dr. Laurason Brown, and proved a very interesting study, showing that bacilli and cocci, such as staphylococci, streptococci, pneumococci, are retained in the blood long after the disappearance of manifestations in clinical symptoms. This may account, in part, for the exacerbations of temperature, etc., in some tubercular patients, which we know are not caused by the tubercle bacilli.

Clinical Section.

The opening address was delivered by Dr. M. Ravanel, who, after speaking of the work done by various philanthropists during the past year, especially emphasized the fact that the long-debatable question of Prof. Kirsch, regarding the relation of bovine tubercle bacilli to man, was almost a settled one. The bovine bacillus is generally recognized at the present day as a source of danger to man—children especially being more susceptible to infection by the bovine bacillus.

As for a method of active immunization in man, the work of Dr. Wilb, of Denver, consisting in the injection of one, two and more "living" tubercle bacilli, proved a valuable step towards solving this important question.

The external use of water for enhancing resistance in tuberculosis was presented by Dr. Simon Baruch, of New Jersey, who seemed to be impressed with the idea that water applied at certain temperatures and with certain force raised the blood resistance (leukocytosis) more than when simply applied by the ordinary cold applications. For this method it takes special apparatus (non-portable), and this makes it non-applicable in general practice. However, as

Prof. Knopp and others said, the ordinary "towel" or "sheet" bath, or the cold spray, was as efficacious as the more complicated methods suggested by Dr. Baruch.

The diagnostic use of tuberculin was taken up by Dr. Baldwin, of Saranac Lake (Dr. Dunn being absent). Here it was the general belief that the tuberculin test was very valuable in determining the presence of tuberculosis in children under five years, a positive reaction at that age meaning the positive existence of tuberculosis somewhere in the body. However, it was thought by Dr. Baldwin that in the adult only a "negative" reaction to tuberculin was of value—this, due to the fact that so many develop a tuberculosis which remains latent without clinical manifestations. This was commented upon by others, bearing out the fact that many of the latent or "non-clinical cases of tuberculosis" may not necessitate rigid and active treatment. Nevertheless, these patients must be warned and guarded against the dangers of an irregular "mode of life," as nothing proves that latent tuberculosis cannot become active upon the committing of certain indiscretions.

The value of the tuberculin test in the adult was more liberally and broadly discussed than previously. All seemed to realize that the clinical symptoms of tuberculosis are "first" to be considered, and that the tuberculin test is only intended to clear doubtful and uncertain diagnoses—*i. e.,* the tuberculin test is corroborative of the clinical findings, indicating that the individual's tissues have been made sensitive to artificial tuberculin toxins—a condition not to be found in the "absolutely" healthy subjects.

The value of reactions in the therapeutic use of tuberculin was brought out in a paper by Dr. Chas. White, of Pittsburg, who takes the skin reaction for a guide when giving tuberculin therapeutically. The dosage of tuberculin is given according to the degree of the skin reaction, and its time of appearance. This is based upon the belief that a marked and early reaction, resulting from a certain quantity of tuberculin, is indicative that a proportionate quantity of tuberculin injected would be the dose of tolerance.

Twenty-four cases of tuberculosis treated by compression of lung were presented by Dr. Mary Lapham, who showed that, though the method is not curative, it promises much as a palliative, especially in the more advanced cases. The compression of the lung, by injecting nitrogen gas in the pleural cavity, relieves active distressing

symptoms, such as cough, temperature, etc. The method is not perfect and without danger, as it is with difficulty that one can tell positively when the needle enters or is in the pleural cavity. The exact quantity of gas to be injected is another uncertainty. Dr. Lapham uses radioscope views in guiding the quantity of gas injected, noting the compression of the lung.

The method was spoken of favorably by some, and unfavorably by others.

Clinical consideration on conditions commonly mistaken for tuberculosis was presented by Dr. Wm. Thayer, who spoke of the various affections of the upper respiratory passages as suggesting tuberculosis. Diseases of the liver, heart, pleura, often are mistaken for tuberculosis. The numerous malarial affections, unfortunately, are still mistaken by some for tuberculosis. Enteroptosis, with anemia, in young females was often mistaken for tuberculosis. Dr. Thayer's paper was suggestive of the fact that even with our present methods of diagnosis many are misled by conditions simulating tuberculosis.

The use of the X-ray in the diagnosis of pulmonary tuberculosis was presented by Dr. Fred Bactzer, who interpreted the "bands" found in the lung picture as indicative of tuberculosis. It remains to be proven that such is a fact, for other conditions were reported which could or may cause these "bands" or similar phenomenon.

Restoration of the working efficiency after sanatorium treatment was presented by Dr. Herbert King, of Lonnis, N. J., who thinks that the "farm reservation" is a valuable adjunct to the sanatorium, and adaptable to the after-treatment of discharged sanatorium patients. Such farms are not a financial success, but are of value to those who cannot return to their previous occupations without injury to their health and welfare. Where there are no "farms," it is thought best for the patient to return to the position which he occupied previous to his illness, provided that occupation be not too objectionable.

A study of the ultimate results in dispensary treatment of tuberculosis, by Dr. H. R. Landis, of Philadelphia, impresses one with the unfortunate fact that only 73 per cent of first-stage cases and only 10 per cent of third-stage remained well after seven years. It is true that Dr. Landis' cases were from the poorer classes, and this may account for the relative low percentage of arrested cases.

As we see more of the poorer classes, we can realize that the great problem is mainly a question of early diagnosis, laying the burden of solving this great tuberculosis problem chiefly upon the doctor.

The comparison between dispensary and sanatorium cases was taken up and widely discussed. The author, discussing this popular question, expressed his views as follows: "The sanatorium is intended for the restless and disobedient patient, and the dispensary for the willing and intelligent patient." The sanatorium is a boarding-school, and the dispensary the ordinary day-school.

Dr. Laurason Brown spoke of the value of tuberculin, and seems to think that, alone, the "psychic effect of tuberculin somewhat justifies its administration." This may be, to a small extent, but without doubt the favorable reports of cases treated with tuberculin can be accounted for by more direct and substantial causes and effects than mere suggestions.

Studies and observations of the polynuclear leucocytic blood picture was reported by Dr. Ringer, of Asheville. The effect of exercise upon the leucocytic picture was reported by Dr. W. Solis-Cohen, of Philadelphia. The value of the polynuclear blood picture as a guide for tuberculin was reported by Dr. Durel, of New Orleans. All three of the above writers demonstrated the fact that the polynuclear blood "picture" shows changes in the early and advanced stages of tuberculosis.

Drs. Solis-Cohen and Durel brought in the study of various blood pictures the important fact that lymphocytes are increased in percentage in improving or arrested cases—a phenomenon thought by Dr. Webb, of Denver, to be observed only in patients at high altitude. Both the cases of Drs. Solis-Cohen and Durel were observed at sea-level. A variation in the percentage of cells with multiple nuclei was reported by the three writers, Dr. Durel showing a higher percentage of leucocytes with one nucleus than the two other writers. This can be accounted for by the use of more penetrating nucleus stains and the counting of only clearly separated nuclei as "multiple."

From the above, Dr. Durel concludes that the polynuclear picture, as described by Arneth, does not give the correct relative percentage of polynuclear cells with one or more nuclei.

A resolution was proposed and referred to the next meeting relative to the adoption of a different classification of cases of tuberculosis upon discharge.

Old Classification: Apparently cured; arrested; improved; non-improved.

New Classification: Apparently arrested; quiescent; improved; non-improved.

The above brought out the important fact that the word "cured" has been used too promiscuously by many in their sanatorium and hospital reports. A large percentage of cases discharged as apparently cured in the course of one or two years return, after a few months or years, with advanced tubercular lesions, and this is accounted for by the apparently cured thinking that they are radically rid of their disease, overlooking the methodic mode of life that a "post"-tubercular should live. "He must be considered apparently arrested" until his tissue resistance has maintained its "par value five to ten years, when he may be classed as "apparently cured."

The author, while listening to the discussions of this important resolution, observed that the same men who proclaimed the worthlessness of the tuberculin reaction (positive) in the adult, because it does not only indicate active tuberculosis, but also latent and non-clinical tuberculosis, were the very same to proclaim loudly "that even if the patient was entirely free and clear of all clinical manifestations he was not to be considered radically well." These two incompatible views struck the author as unfortunate, and that the tuberculin test must be of somewhat greater value in the adult than it is thought.

Ninth Annual Meeting of the American Society of Tropical Medicine.

Reported by Dr. Creighton Wellman.

The ninth annual meeting of the American Society of Tropical Medicine was held at the Hotel Rudolph, Atlantic City, on June 3d, the day preceding the opening of the sessions of the American Medical Association.

Both in attendance and interest the meeting was a successful one. President Joseph H. White, of New Orleans, made a pleasing and efficient presiding officer and the discussions were held to time limits, with a corresponding increase of interest and value.

After the President's address on the "Eradication of Malaria," which was of extreme practical and authoritative interest, and

the reports of the Secretary and Treasurer, the regular program was taken up. Among the papers were one by Henry J. Nicholls, of Washington, D. C., on the "Biological Characteristics of *Spirocheta pallida* and *S. pertensis*," and another by C. S. Ludlow on "Entomological Points for the Worker in Tropical Medicine." Dr. Ludlow's paper was illustrated by many interesting charts and was carefully discussed by Drs. Wellman and Goldberger.

Dr. Creighton Wellman announced that Dr. C. C. Bass, in charge of the Tulane School of Tropical Medicine's Malarial Research Expedition to Central America, has reported successful cultivation of the malarial parasites *in vitro*. This announcement was later also made before the Section of Pathology of the A. M. A. and attracted much attention and discussion.

Dr. Wellman also reported upon the recent work on leprosy by Duval and himself, exhibiting specimens, cultures, photographs and sections.

The afternoon session was given up to a symposium on "Beriberi," and consisted of the following papers: The first was a "Summary of the Literature on the Etiology of Beri-beri," by John W. Swan, of Rochester, N. Y. Among the other papers was one read by Creighton Wellman on "Experiments by himself and Bass with Louisiana Rice with Reference to the Etiology of Beriberi." The experimental condition in fowls was shown, together with photographs and specimens. The most interesting experimental animal died *en route*. It was brought out in this investigation that not only polished rice, but also cane sugar, corn starch, a mixed diet with oxalic acid, semi-starvation, and probably other methods will produce a Beri-beriform polyneuritis in fowls.

The session was closed by a paper on "Gangosa," illustrated with photographs, by G. L. Angeny, of Philadelphia, and by the description of a "Malarial Hotbed Within Sight of the National Capital," by Thomas W. Jackson, of Fort Washington. Among those who discussed the last paper was Charles F. Craig, of Washington, D. C.

The officers elected for the ensuing year are: President, E. R. Stitt, of Washington, D. C.; Vice-Presidents, R. A. Strong, of Manila, and Creighton Wellman, of New Orleans; Secretary, John M. Swan, of Rochester, N. Y.; Assistant Secretary, Allen J. Smith, of Philadelphia; Treasurer, C. L. Forbush, of Philadelphia.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

A. M. A. Meeting.

The registration at the Atlantic City meeting was less than 2700 —and the preponderance from Pennsylvania, New Jersey and New York. It is pleasant for those who go to Atlantic City for the meeting, but less than 10 per cent of a membership seems hardly representative.

The commercial exhibit at this year's meeting was excellently displayed, and, may it be said, at the expense of the scientific exhibit. The scientific exhibit really had no place, except in odds and ends of corners which were left over from the commercial exhibit.

Since space is so valuable, it might have been a good idea for the overseers, or advance agents, to have farmed out some preferred space to the scientifically inclined! But that is another story now, for the House of Delegates has considered this very matter and it is reliably reported that in future the last shall be first and the scientific exhibit will be the most prominent among the exhibits, as it should be. Even though small in numbers the Atlantic City meeting seethed in politics and the presidential candidates of the United States occupied no more attention than did those in the A. M. A. Such things always go on, probably, but not as patently as at Atlantic City.

Without prejudice of spirit, however, we must be pleased that Dr. J. T. Witherspoon, of Nashville, won on the show down. It would have been wiser if he had won on his merits alone, for he has been the most earnest worker in the A. M. A. of all the Southern contingent in the inner circle and for many years he has been a consistent standard-bearer for the South. Besides, he is a distinguished educator, and above all a *facile princeps* orator. The Journal congratulates the A. M. A on their new president.

The section meetings were evidently successful, and most of them were well attended. A notably increased interest has developed in the Section on Hygiene and Public Health, evidenced by the large attendance and the numerous contributions to its program. At this time the character of the program might be excused, for it appears to be much more popular than academic.

The General Session was of unusual remark as it was the occasion for a characteristic address by Mr. Woodrow Wilson and a paper by the new president, Dr. Abraham Jacobi.

Mr. Wilson characterized his address with veiled satires on modern politics and in a running figure of speech compared the integers of a political campaign to the experiences of a modern physician. The strenuous arbiter of all things human- self-constituted officiousness in chief—T. R. he did not name but a large essence of intelligence pervaded the audience when Mr. Wilson defined the quack in politics.

Dr. Jacobi made a wondrous plea for the new born, the mother as a factor in human development and the whole of his annual address was punctuated with the wisdom of a long life devoted to the study of the questions he discussed.

Meantime the fascinating auction shops, the ping pong tables, the display of writing treasures, the humorous pastimes of the young and old, and the spirit of a restless crowd—all made the meeting of 1912 a success. The next meeting place is to be Minneapolis.

The following officers were elected:

President, John T. Witherspoon, Nashville, Tenn; First Vice President, Dr. Philander A. Harris, Paterson, N. J.; Second Vice President, Dr. John L. Heffron, Syracuse; Third Vice President, Dr. H. H. McClanahan, Omaha; Fourth Vice President, Dr. Walt P. Conaway, Atlantic City; Secretary, Dr. Alexander R. Craig, Chicago; Treasurer, Dr. William Allen Pusey, Chicago; trustees, Dr. M. L. Harris, Chicago; Dr. C. A. Dougherty, South Bend, and Dr. T. W. Councilman, Boston. Members of the Judicial Council: Dr. George W. Guthrie, Wilkesbarre; member of Council on Health and Public Instruction, Dr. Walter B. Cannon, Boston; members of Council on Medical Education, Dr. James W. Holland, Philadelphia and Dr. W. D. Haggard, Nashville.

The Sanitary Code.

The Supreme Court of the State of Louisiana has upheld the constitutionality of the Sanitary Code and of the pure food and drug law of Louisiana, as formulated and promulgated by the Louisiana State Board of Health under the specific direction of legislative act.

While all sane individuals must acknowledge the logical action of the Supreme Court in fixing the police authority of the State Board of Health, there are those who are slow to understand.

Since the administration by Moses of the duties as chief health officer, the police power of the Sanitary authority has been established. Often questioned, no attempt at abrogating its essential principle of police power has ever actually succeeded. The protection of the health of a community or of a people is paramount, and everywhere organized society has made for the protection of its health, brutally at times, but nevertheless protection has prevailed. Society in its self-protection has framed customs and laws, varying with the times and with the peoples interested, but everywhere the basic principle has survived that the public welfare comes before the individual will. The detail of administering the regulations of public health may be a matter of judgment and the judgment may at times be in error—but so long as the objective is good, the method may be modified.

The State of Louisiana will be all the better for a Code of practice regulating the public in its food, habits and conditions, so that as the borderland of education and of practice touches that of ignorance and bad habits in health, there may be a proper leavening.

Cerebro-Spinal Meningitis.

The last number of the Quarterly Bulletin of the Louisiana State Board of Health consists of an account of the epidemic of Cerebro-spinal meningitis which occurred in some parts of the state this year and now happily over.

It shows that cases occurred in twenty-three parishes, of which nine had only one case and six only two cases. The only parish in which the disease prevailed to any extent was Caddo, with 141 cases out of a total of 250 cases for the whole state.

Of the 250, there were 97 whites and 153 colored; 170 were males

and 80 females. The cases were distributed among 121 families, of which 96, or about three-quarters, had only one case each.

The number who died were 117, while 133 recovered, and the percentage of deaths among those receiving the serum treatment was only thirty-eight against seventy-three among those who did not get the serum.

The duration of the disease was from January to May and a study of the figures given above will tend to justify the Board of Health in its opposition to quarantine and to lay stress on the value of anti-meningitis serum (Flexner) in the treatment.

The Hon. Clark Bell.

On June 29 the *Medico-Legal Journal* celebrated its twenty-ninth anniversary. Clark Bell, LL. D., has been the editor of the publication during its entire existence and has been the recipient of most flattering letters and telegrams of congratulations from eminent judges, doctors and lawyers. The JOURNAL joins the host of well-wishers and hopes Mr. Bell will long be preserved to continue the valuable work in which he was a pioneer.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

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

METRORRHAGIA IN VIRGINS.—Dalche *(Journ. des prat.,* xxvi, 1912) considers the causes and treatment of the following forms of metrorrhagia in virgins: *Menorrhagia in chlorosis:* Instead of amenorrhea, these patients suffer from menorrhagia, as first pointed out by Trousseau. The loss may be very abundant, and even considerable, and distinguished from other forms of menorrhagia in virgins by being free from pain. The patients owe their chlorosis to tuberculosis, syphilis, alcohol, malaria, or hereditary degeneracy. *Virchow's type:* This is characterized by follicular hypertrophy

of the ovary with hyperactivity of the organ. *Sexual hypoplasia,* to which Pozzi has drawn attention: Owing to the narrowness of the orifices the canal dilates and becomes of an hour-glass shape, in which clots and debris collect, and as a result of which metritis develops. *Neuro-arthritic form of Richelot:* There are plethoric girls who at puberty suffer from abundant leucorrhea. Later the menses appear, and are exceedingly painful. Some consider them to be a manifestation of tubercle. *Coprostasis:* Constipation produces congestion of the pelvic organs, which congestion is extended to the utero-ovarian veins, and as a result menorrhagia and dysmenorrhea occur. Free purgation and regular action of the bowels remedy this condition. *Mitral stenosis:* In this case, congestion, and hence metrorrhagia, are produced at the time of puberty, and a true cardiac uterus, of ovarian or uterine origin, is produced. Menorrhagia is also caused by salpangitis, ovaritis and tumors of the ovary. *Treatment:* In those cases associated with severe loss, and where delay is dangerous, the patient must be placed in the horizontal position, warmth applied and stimulants given. Irrigation by very hot or cold water should be employed under moderate pressure, and for some time ice should be applied to the hypogastrium, and injections of ergotin given, and the uterus then plugged. Injections of animal (20 c. cm.), as well as physiological (150 c. cm.) serum are in place. In Virchow's and similar fluctionary types the patient must be placed in bed, kept warm, and enemata of castor oil given. Ergotin, 10 centigram; quinin sulfate, 2 centigram; powdered digitalis leaves, 1 centigram, should be given in a pill five times a day. Opotherapy, mammary extract in powder (2 to 3 cachets, 50 centigrams per diem), thyroid (5 centigrams to begin with, hypophysis, suprarenal, has been found of value. Injections of warm or cold animal serum, or warm rectal injections, are also in place. Foot-baths of cold water of five or ten minutes' duration are also of advantage, and repeated plunging of the hands in hot water is an excellent procedure. All constitutional diseases should receive attention. In tuberculous cases, ovarian extract has been found valuable. Hyperplasia of the cervix requires dilatation, or else removal.—*Btsh. Med. Jour.*

Defloration Pyelitis.—Wildbolz *(Corresp. Blatt. f. schweizer Aerzte,* January 1, 1912) points out that the greater frequency of

pyelitis in woman than in man must be due to the greater facilities for infection which the female genitals offer. The relation of pyelitis to pregnancy is now well established, but its relation to defloration has scarcely been recognized. It is so common for newly-married women to complain of painful micturition that the physician usually ignores this symptom, and this non-committal attitude is encouraged by the fact that the condition disappears, as a rule, spontaneously; but when the symptoms of pyelitis persist they are frequently attributed to intestinal catarrh, which is a fairly common incident on a honeymoon, or they are traced to an influenzal infection of the urinary tract. Sometimes there are symptoms of violent cystitis, which are followed in a few days by unmistakable signs of pyelitis, such as renal pain, pyuria and high fever. When the clinical picture is that of cystitis, the physician naturally thinks first of a gonorrheal infection, and the husband's protestations of innocence are usually met with courteous skepticism, even after an examination of the urethra has revealed no discharge. That such a slight injury as defloration may cause pyelitis is shown in three cases of acute pyelitis in newly-married women see by Wildbolz. In each case nephrectomy had been performed for renal tuberculosis; the urine had subsequently been repeatedly examined, and marriage had been permitted only after it had become normal and sterile. The pyelitis, which flared up directly after marriage, was at first attributed to a recurrence of tuberculosis due to the activity of a focus of disease previously latent in the kidney; but the urine was found to obtain a pure culture of the colon bacillus, which was present in the bladder and the pelvis of the kidney. The patients, whose husbands were innocent of urethritis, made a complete recovery. In the course of the last few years the writer has seen five other cases in which painful micturition was complained of by newly-married who had not previously suffered from this condition. In the urine of one a Gram- positive diplococcus was found; in the purulent urine of the remainder there was a pure culture of the colon bacillus. None of the husbands suffered from urethritis, nor was the gonococcus ever found in the patients' urine. Cystoscopy of three of the patients showed that only the region of the trigonum was inflamed. The pyelitis was invariably unilateral, being confined to the right

side in four cases and to the left in one. The following case also supports the writer's contention: The wife of a medical man suffered from a severe attack of pyelitis on the right side, due to the colon bacillus. There had been two similar attacks within the last four months, and each had begun with symptoms of cystitis, which were followed in a few days by fever, violent pain and swelling of the right kidney. The patient rapidly made a complete recovery, but two weeks later there was another attack, with high fever, renal pain, and vesical tenesmus. Only the colon bacillus was found in the urine. The husband stated that each attack had been preceded by coitus twenty-four hours earlier, and that the patient had suffered from vaginismus. The husband was elderly, and on account of ill health had not cohabited with his wife for five years. On the renewal of sexual intercourse the wife suffered from vaginismus, kraurosis vulvæ, senile atrophy of the vagina, and a tendency on the part of the external genitals to bruise readily. Whether the infection spread by the ureters, the lymphatics or the blood stream, is not certain; but the fact remains that pyelitis followed coitus with striking regularity, and that it never recurred after coitus had been abandoned. The recognition of defloration and coitus as causes of pyelitis is most important, as it relieves both the physician and the husband of the embarrassment which a diagnosis of gonorrhea often causes. When internal urinary antiseptics fail to cure the condition early, local treatment should be employed. It is important that even slight symptoms of cystitis in newly-married women should not be ignored, for it may be the starting-point of pyelitis gravidarum, which is relatively common in primiparæ. Rovsing has reported three cases of pyelitis which he traced to trauma of the hymen; but with this exception the condition appears to have passed unnoticed in current medical literature.—*Ibid.*

Department of Internal Medicine.

In Charge of Dr. E. M. Dupaquier, New Orleans.

Gastro-Intestinal Symptoms in Gout and Oxalemia.—These have been very much discussed. Prof. Lœper divided them into two classes: acute and subacute attacks, affecting either the stomach of the intestine, or both at the same time.

Acute attacks may consist of gouty gastritis, with painful distension of the stomach; acute dilatation, with vomiting, cold sweat, and a tendency to syncope; spasmodic colics, painful diarrhea, neuralgia, rather suggestive of those of lead poisoning; tabes or abdominal arteriosclerosis.

Subacute attacks consist of symptoms of sensitivo-motor dyspepsia, pain, alternating constipation and diarrhea, spasmodic intestinal pains, atony of the alimentary canal, and even repeated evacuation of mucus.

These attacks seldom affect the stomach, and Prof. Lœper has only seen it once. But the intestinal form is more frequent, and Prof. Lœper records a very typical case of what he terms "crise entéralgique diarrheique," and another of "spasmodique or mucorrheique" attacks. Besides these acute forms are minor forms resembling gastro-intestinal dyspepsia, the diagnosis of which is always confirmed by a consecutive attack of gout.

Prof. Lœper holds that these attacks are due to the action of the gouty toxins, and, namely, of oxalic acid, on the solar plexus, which regulates gastro-intestinal secretions and the rhythm of the movements of the alimentary canal, its irritation causing *pain,* either with or without diarrhea, spasms or with paralysis. Therefore, the abdominal attacks of gouty individuals are, or, at least, may be considered attacks of toxic celiagia.—*(Progrès Medical. Les crises abdominales des goutteux et des oxalémiques,* Prof. M. Lœper, Paris.

Treatment of Coma in Diabetes.—An effective treatment of diabetic coma must realize three essential conditions: First, neutralize the acids and promote their elimination; second, help to the re-mineralization of the system and to establish the proper balance of the mineral constitutents of the blood; third, prevent the vasomotor weakness which is common to all forms of coma.

The food must contain neither albumen nor fat; one-half or one litre of milk may be taken, as well as 120 to 150 gms. of glucose, per diem; champagne or brandy largà manu; sodium bicarbonate, one or two drachms every two hours until the urine becomes alkaline; vasomotor and cardiac stimulants (Ringer's solution, with a little adrenalin.—*Progrès Medical. Traitement du coma diabétique.* Dr. Blum, Privat-docent. Strasbourg.)

Department of Therapeutics and Pharmacology.

In Charge of Dr. J. A. Storck and Dr. J. T. Halsey, New Orleans.

Enuresis and Thyroid Extract.—Firth treated twenty-eight unselected and consecutive cases of enuresis with thyroid extract. The children attended hospital once weekly, and, as far as possible, no change was made in their mode of living while the thyroid extract was being administered. Adenoids were not removed, although this has been done in several cases since, and no anthelmintic was ordered in cases harboring threadworms. When the mothers had been in the habit of "lifting' the children on retiring themselves, they were instructed to continue the practice, but, where it was not done, this method of treatment was not recommended. Of the twenty-eight cases, sixteen showed a marked improvement or were cured, and twelve did not improve at all. The cases which appear to react to this form of treatment better than all others are those in which the enuresis has persisted since birth, and in which the patients are also backward. Of sixteen cases in which the enuresis started during childhood, six out of the ten improved were backward, compared wtih two out of six not improved. The initial dose was one-fourth or one-half grain daily, and the rate of increase varied much, as the work was experimental; often the dose was increased every fourteen days. In some cases which showed improvement, but in which the condition had become stationary, the same dose was continued for a month or more.—*London Lancet.* J. A. S.

Boison.—A preparation of casein, with other ingredients, forming a fine, grayish-brown, odorless powder, not unpleasant to the taste, and still less so when dissolved in warm water. Among those physicians who have recommended it to their patients is Heim *(Berl. Klin. Woch.,* 1904, p. 593), who, in 100 cases, found it to be a non-irritating, nourishing nerve tonic, promoting appetite.—J. A. S.

Pertussis—Rosenfeld *(Berl. Klin. Woch.,* No. 37, p. 1686, September, 1911), recommends the following prescription as useful in relieving children with whooping cough:

℞ Medinal (the sodium salt of veronal).....
Antipyrin..... a. a. gr. x

Fluidextract glycerrhizæ.....	ʒiii
Elixir simplicis qs. ad.....	ʒiii

M. et Sig.

A dessertspoonful three or four times a day.

The above is calculated for a child of two to three years of age. J. T. H.

The Operative Treatment of Gastric Crises in Locomotor Ataxia.— Foerster, *(Ther. d. Gegenwart,* 1911, p. 338) tabulates the result in twenty-eight cases where the posterior spinal nerve roots were resected in extreme cases of this condition. These are all the cases reported to date, and most of them are separately and concisely reviewed in this article. All of these cases were those of individuals whose condition was a most pitiable one, in spite of the fact that they had all received the benefit of careful and thorough treatment along approved lines. Of the twenty-eight cases three died as a result of the operation from meningitis or shock. In two cases, the operation resulted in no amelioration. In the remaining twenty-three cases, there was prompt cessation of the crises with marked improvement in the general condition and decided increase in weight. In a number of these cases the relief has been permanent, although in none of them was the period reported on over one and one-half years. In other cases, while there was at first entire relief of the crises, later these returned, although much less frequently and severely than before the operation. When one considers the miserable state of these patients, emaciated to a marked degree and often addicted to morphine, that is to say, poor surgical subjects, the death rate of three in twenty-eight is surprisingly small. Occasionally bladder disturbances and paralysis of the legs followed the operation. This was by no means the rule and Foerster believes that such happenings should not be expected.

When one considers the desperate and pitiable condition of a patient with frequent or constant gastric crises, and sees that in the large majority of cases this operative procedure brings complete or marked relief to the sufferer, the conclusion seems inevitable that such patients should be given the chance which this operation procures for them. Further it is eminently desirable that these cases should be brought to the surgeon before they have lost so much ground as to render them bad surgical subjects. J. T. H.

Veronal and Phenacetin.—Von Noorden *(Ther d. Gegenwart,* 1911, p. 287) states that he has found a combination of five grains of veronal and two and a half grains of phenacetin, to which he occasionally adds one-half grain of codein phosphate, an exceptionally useful combination in insomnia. He has found that addition of phenacetin to the veronal not only about doubles the hypnotic effect of the veronal, but also prevents any after action of the veronal such as headache, tired feeling, or confusion on the following day. The combination with codein he has found especially valuable where the sleeplessness is largely or partly the result of an irritating cough. J. T. H.

Medical News Items.

Polyclinic Hospital.—The new quarters of the New York Polyclinic Hospital, at 347 West Fiftieth street, were recently opened for inspection. The building consists of ten stories, two basements and a roof garden, the tenth floor being devoted to the kitchens. On the ninth floor is the operating room, dedicated to Dr. William A. Pryor. The roof garden commands a wide view of the city and of the Hudson river, and should be cool in summer. In winter it will be enclosed in glass and heated.

Ontario Legislature Introduces New Bill.—A bill has been introduced in the Ontario Legislature which provides that no hospital receiving provincial aid shall refuse to admit a patient suffering from tubercular disease; that all private hospitals must be licensed, and must pay a fee of $5 a year, and that public hospitals shall not charge a municipality or an employer more than one dollar a day for any patient treated in that hospital.

Sterilization of Criminals.—Governor Dix, of New York, recently signed the bill passed by the Legislature providing for the sterilization of certain classes of criminals and defectives confined in State institutions. The new law creates a board, to be known as the Board of Examiners of Feeble-Minded, Criminals, and Other Defectives, to have supervision over the matter, to be made up of one surgeon, one neurologist, and one medical practitioner, each with ten years' experience. If, after examination, the board de-

cides that an inmate of the class affected would transmit to his offspring a tendency to crime, insanity or feeble-mindedness, or that his own mental condition would be improved thereby, it is to appoint one of its members to perform the necessary operation. The law applies to those who have been convicted of rape or of such a succession of offenses as the board may consider to afford sufficient evidence of confirmed criminal tendencies. The operations of the law are safeguarded by the provisions for a judicial review of the findings of the board before any operation is performed, and no order of the board can become effective until it has been on file for ten days. Careful records are to be kept of the effect of the law's application. New York is the sixth State to adopt such a law, New Jersey and Illinois being among those in which such action has already been taken.

School Reorganized.—The University of California Medical School was recently reorganized, with Dr. Herbert G. Moffitt as Dean. Dr. Wallace I. Terry heads the Department of Surgery, and Dr. W. W. Kerr that of Medicine. The new plans include the concentration of the work of the school in San Francisco in a hospital to be built from funds furnished by friends of the school.

To Transfer Lepers.—The Government, it is said, proposes to transfer the leper colony of the Island of Guam to the Philippines, where the lepers are interned on Culion Island. Congressional action will probably be necessary, as the appropriation made for the support of the lepers at Guam cannot be used for transferring them or for maintaining them in the Philippines.

Pellagra Afflicts Insane.—The report of Dr. Clarence Pierson, superintendent of the East Louisiana Hospital for the Insane at Jackson, announces that there are eighty-four cases of pellagra at that institution, of which number forty-eight are white males, thirty-two white females, and four colored females. Dr. Pierson reports that all the pellagra patients are isolated. Medical authorities have not yet decided whether the disease is infectious or contagious. The physicians are treating them as contagious until the question is settled definitely. Conforming to the Lombroso theory, corn is not fed the pellagrins, and corn products for the rest of the patients are manufactured on the farm, to insure purity. Conforming to the Sambon parasite theory, the patients are segregated and kept behind fine-mesh wire screens.

Asks Raise in Fees.—A bill to increase the examination fees for doctors and midwives was recently introduced in the Senate, and by unanimous consent was referred to the Committee on Health. The committee unanimously agreed to report the bill favorably. The measure is designed to provide more money to run the State Board of Medical Examiners. The present income of the board is only about $2,000 a year. The bill increases the fee for examination of a physician from $10 to $25, and the fee for examination of a midwife from $5 to $10.

Leprosy in Toronto.—A case of leprosy has occurred in Toronto. The victim is a Chinese boy of thirteen years of age, who has been in this country for three months only. He was an inmate of the Toronto General Hospital for some weeks, but has been deported to the leper colony of Tracadie, in New Brunswick.

Tuberculosis Sanitarium.—A tuberculosis sanitarium for Louisiana is in sight. A bill has been offered carrying an appropriation of $10,000 as a starter, and it will be pushed through by the administration. A site will be secured in the central part of the State in the piny woods. The Board of Administrators will be composed of the Governor, Attorney General and President of the State Board of Health.

The Annual Commencement of the Tulane University of Louisiana was held at the French Opera House on Wednesday, May 29, 1912, at 11 A. M. The order of exercises consisted of a prayer by Rev. William McFadden Alexander, D. D. LL. D., pastor of Prytania Street Presbyterian Church; the alumni address, by Benjamin Palmer Caldwell, A. B.; the report of the Dean of the Post-Graduate Medical Department; conferring of degrees by the President of the University to candidates in the Department of Arts and Sciences, in the Department of Technology, in the Teachers' College, in Normal Art in H. Sophie Newcomb Memorial College, in the Graduate Department, for the Degree of Bachelor of Laws, for the Degrees of Doctor of Medicine and Pharmaceutical Chemist, and for the Degree of Doctor of Dental Surgery. Agreeable and choice music was furnished by O'Connell's orchestra. There were 104 graduates in the Medical Department, twelve in the Department of Pharmacy, and twenty in the Dental Department.

The Orleans Parish Medical Society held a public meeting on May 27 in the Assembly Hall of the New Orleans Progressive Union. The program was as follows: 1. "The Principles of Tropical Hygiene," by Dr. Creighton Wellman; 2. "The Effect of Tropical Climates on White Men," by Dr. E. M. Dupaquier; 3. "Tropical Sanitation and Its Relation to the Development of Our Central American Republic," by Dr. Robert Earl Swigart; 4. "Some Side Lines in the Tropics," by Dr. Isadore Dyer; 5. "The Proper Diet in the Tropics, with Some Pertinent Remarks on the Use of Alcoholics," by Dr. Allan Eustis. Each of the papers was short and to the point. There was also a general discussion, "What Effect Will the Opening of the Panama Canal Have on the Health of New Orleans and Louisiana?"

The Dispensary of the Sickles Fund Commission for the dispensing of free drugs to the deserving poor was recently opened at the pharmacy of the Charity Hospital, on Tulane avenue and Villere street. The rules to be observed by physicians in writing prescriptions to be filled at the dispensary are as follows:

Prescriptions will be filled daily from 8 to 10 A. M., and 2 to 4 P. M.

Only those preparations included in the official pharmacopeia of the Commission will be dispensed.

No patent or proprietary medicines, serums, antitoxins, dressings or appliances are included.

The prescription of any reputable physician will be honored so long as the funds and medicines last.

Beneficiaries of the fund must be *bona fide* residents of New Orleans, and too poor to pay for the medicine prescribed.

The following endorsement must be written by the prescribing physician over his signature on the back of each prescription: "Mr. or Mrs. ———— is a *bona fide* resident of New Orleans, and too poor to pay for this prescription."

Physicians will exercise care and discretion in writing prescriptions, especially regarding quantity ordered at one time, so that the greatest number of deserving poor may be benefited thereby.

Prescriptions will be limited to the following quantities: 1. If the dose be a teaspoonful, not to exceed three ounces; 2. If the dose be a tablespoonful, not to exceed six ounces; 3. Pills, powders or capsules, not to exceed twelve. 4. Liniments or lotions, not to

exceed six ounces; 5. Ointments, not to exceed one ounce. No prescription will be refilled without proper certification by prescribing physician.

A list of drugs and preparations that will be dispensed has been furnished to physicians.

A Twelve-Story Office Building exclusively for physicans and dentists has recently been constructed in St. Paul, Minn., at a cost of over $1,000,000. It is a block wide and fifty feet deep. On the roof is a laboratory and emergency operating room. It is fireproof and contains all modern improvements—compressed air, vacuum cleaning system, electric light and power in each room. Also, it has a medical and bacteriological laboratory and pharmacy, and facilities for developing X-ray photos. The corridors are larger than usual, and walls and ceilings arranged to be kept in a sanitary condition. Doors are perfectly smooth, so as not to catch dust. Special ventilating system, location, and shape provide abundant light and fresh air. Toilet facilities on each floor for men and women.

We Have Received the biennial report of the Board of Control for the Leper Home of the State of Louisiana to the Governor and General Assembly for 1911. It includes: 1st, the report of the president, which shows that there has been a steady growth in the number of patients at the Home, the number having increased from sixty in 1910 until it now stands at seventy-four. The female cottages are taxed to their capacity, and it may be necessary to build an additional cottage during the coming year. During the past two years thirty-one new cases have been admitted, two have been discharged cured, fifteen absconded, and ten died. The monthly maintenance of $1,500 allowed by the last Legislature has not been sufficient to pay the expenses of the institution.

2nd. The report of attending physician, which details, among other things, that the present number of cases is 74, as compared with 66 two years ago; 47, 44, 38, 30 and 23, in the years 1908, 1906, 1904, 1902, 1900 and 1898, respectively. Of these 74 cases, 45 are males and 29 are females, and of the females, 24 are white and 5 colored.

3rd. The report of Sister Benedicta states that, while the diet of the patients has been improved as far as financial resources permit, further improvement is necessary, and that the most

urgent needs are facilities for a laundry for the patients and a new kitchen building.

Personals.—Dr. Thomas McCrea has been appointed professor of medicine in the Jefferson Medical College of Philadelphia. This professorship has been held for many years by Dr. James C. Wilson, who has recently resigned. Dr. McCrea is a Canadian by birth, and graduate of Toronto University. He has been connected with the hospital and teaching faculty of Johns Hopkins University for the last sixteen years.

Dr. Edward H. Bradford has been appointed Dean of the Faculty of Medicine and Dean of the Medical School of Harvard University.

Dr. W. J. Martin, professor of science of Davidson College, was elected president of the institution, succeeding Dr. Henry Louis Smith, who goes to Washington and Lee as president.

Dr. C. C. Haskell, of the pharmacological department of Eli Lilly & Co., was in attendance at the Atlantic City meeting of the American Medical Association.

Removals.—Dr. A. J. Strange, from Melville, La., to Opelousas.

Dr. C. R. Garroway, from Brandon, Miss., to Laurel.

Dr. M. V. Hargrove, from Oakdale, La., to Marionville.

Dr. B. F. Buquoi, from St. Benedict, La., to Covington.

Married.—On June 15, Dr. Albert E. Fossier to Miss May Keller, both of New Orleans.

On June 18, Dr. Paul Avery McIlhenny to Miss Louise Gladys Westfeldt, both of New Orleans.

Died.—On May 22, 1912, at Eunice, La., Dr. James O. Ray, a prominent physician of Opelousas, aged 57 years.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

International Clinics. Vol. I, Twenty-second Series, 1912. J. B. Lippincott Company, Philadelphia and London

We note in this volume a number of very important subjects, viz: "Venereal Disease in the United States Navy—Its Preventment and Treatment, by Surgeon J. S. Taylor, U. S. N.; "Hexamethylenamine in Aural Surgery," by P. Tetens Hald, M. D.; "Sanatorium Treatment of Tuberculosis in Private Practice," by J. H. Mudgett, M. D., which is the most important article in the whole book, and which could serve as a guide in the antituberculosis campaign the world over. Another very notable article is "An Abstract Report of a Case of Transplantation of a Testicle," by Levi J. Hammond, M. D., and Howard A. Sutton, M. D.

We also call attention to the History of the College of Physicians of Philadelphia, and to the review of the progress of medicine during the year 1911. E. M. D.

Medical Diagnosis, by J. C. WILSON, A. M., M. D. J. B. Lippincott Company, Philadelphia and London.

A hand-bood of medical diagnosis in four parts, namely: Medical Diagnosis in General, Methods and Their Immediate Results, Symptoms and Signs, Clinical Applications for the Use of Practitioners and Students. There are 418 text illustrations and fourteen full page plates.

This is the third edition, thoroughly revised. The author has rewritten articles upon Typhus Fever and Relapsing Fever, and introduced Labardillo or Mexican Typhus and Brill's Disease, which he calls Pseudo-Typhus, among the many changes and additions. E. M. D.

Physical Diagnosis, by JOHN C. DA COSTA, JR., M. D. W. B. Saunders Company, Philadelphia and London, 1911.

This is a second edition, thoroughly revised, of the author's Principles and Practice of Physical Diagnosis, with 225 original illustrations. New matter has been incorporated, chiefly in connection with the subjects of sphygmomanometry, nodal rhythm, pleurisy, and lobar atelectasis. A number of new illustrations have been introduced and many of the old figures redrawn, the better to elucidate the matter. E. M. D.

Clinical Diagnosis, by JAMES CAMPBELL TODD, Ph. B., M. D.

This is the second edition of a very good manual of laboratory methods, revised, enlarged and carefully illustrated. "More can be learned from a good picture than from any description," says the author; hence especial attention has been given to the illustrations, and it is hoped that they will serve truly to illustrate. Again: "The book is designed for the student and practitioner, not for the trained laboratory worker."

There are many additions. We mention the Antiformin Method for Tubercle Bacilli among others. We are sorry to note the omission of phenolsulphonephthalein text for functional activity of the kidney.

E. M. D.

Surgery of Deformities of the Face, by Jno B. Roberts, A. M., M. D. William Wood & Co., New York.

This work, just given to the profession, is a practical treatise on plastic surgery of the face, written by one of the best-known authorities on the subject in this country.

Dr. Roberts has given much of his vaulable time and study to plastic surgery. The Mutter lectures delivered by him in 1900, and published in book form, were evidence of his knowledge of this ever-perplexing problem. The work begins with a brief history of the development of plastic surgery, most interesting in itself. The subsequent chapters on anatomy and surgery of the face, and on the principles of plastic surgery of the face, are most interesting and essential to any student desirous of mastering this phase of surgery. Added to the numerous suggestions of well-known collaborators, the author's personal experience greatly enhances the value of this new contribution to surgery.

Although many operations, as well as valuable suggestions, found in other surgical works and reprints are not contained in this volume, the principles laid down by the author are quite sufficient for the guidance of both the physician and surgeon.

Martin.

Publications Received.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1912.

A Cyclopedia of American Medical Biographies, by Howard H. Kelly, M. D. Volumes 1 and 2.

Tumors of the Jaws, by Charles Locke Scudder, M. D.

Differential Diagnosis, by Richard C. Cabot, M. D. Second edition, revised and profusely illustrated.

Duodenal Ulcer, by B. G. A Moynihan, M. S., F. R. C. S. Second edition, enlarged and illustrated.

Diseases of the Genito-Urinary Organs and Kidney, by Robert Holmes Greene, A. M., M. D., and Harlow Brooks, M. D. Third edition, revised and enlarged.

The Immediate Care of the Injured, by Albert S. Morrow, A. B., M. D. Second edition, thoroughly revised.

D. APPLETON & CO., New York and London, 1912.

Psychotherapy, by James J. Walsh, M. D., Ph. D.

C. V. MOSBY COMPANY, St. Louis, 1912

Augustus Charles Bernays—A Memoir, by Thelka Bernays.

P. BLAKISTON'S SON & CO., Philadelphia, 1912.

Diagnostic Methods, by Ralph W. Webster, M. D., Ph. D.

CHARLES GRIFFIN & CO., LTD., London and Philadelphia, 1912.

Diseases of the Tropics, by Edward S. Crispin, M. R. C. S., L. R. C. P.

WILLIAM WOOD & CO., New York, 1912.

Essays on Genito-Urinary Subjects, by J. Bayard Clark, M. D.

LEA & FEBIGER, Philadelphia and New York, 1912.

Progressive Medicine, edited by Hobert Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. June 1, 1912.

MISCELLANEOUS.

The Fourth Annual Report of the Commission of Health of the Commonwealth of Pennsylvania. Parts I and II. (C. E. Anghinbaugh, Printer, Harrisonburg, Pa., 1911.)

Public Health Reports, Nos. 19, 20, 21, 22. (Washington Government Printing Office, 1912.)

Anglo-Saxon Leechcraft. (Burroughs-Welcome Company, London, 1912.)

Memorial to Dr. Crawford W. Long. (University Bulletin, Philadelphia, 1912.)

Report of the Department of Sanitation of the Isthmian Canal Commission for the Month of March, 1912.

The Lilly's Scientific Bulletin, Series 1, No. 1.

Quarterly Bulletin of the Louisiana State Board of Health, Volume III, No. 11, May 1, 1912.

Biennial Report of the Louisiana State Board of Health, 1910-1911. Brandao Printing Company, New Orleans, 1911.)

Report of the Commission on Milk Standards Appointed by the New York Commission. (Washington Government Printing Office, 1912.)

The Twenty-second Annual Report of the Eye, Ear, Nose and Throat Hospital for the Year 1911.

Reprints.

Hypertrophie Amygdalienne et Gymnastique Respiratoire, par le docteur Marcel Natier.

The Life of Radium, and Its Therapeutic Use in Internal Medicine, by E. O. Jellinek, M. D.

Memoranda Concerning Vaccination in the Prophylaxis of Typhoid Fever, by Wm. S. Magill, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans

For May, 1912.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	1		1
Intermittent Fever (Malarial Cachexia)		2	2
Smallpox			
Measles			
Scarlet Fever	3		3
Whooping Cough			
Diphtheria and Croup	1		1
Influenza	2	1	3
Cholera Nostras			
Pyemia and Septicemia		1	1
Tuberculosis	26	47	73
Cancer	21	7	28
Rheumatism and Gout	1		1
Diabetes	3	1	4
Alcoholism	2	1	3
Encephalitis and Meningitis	6	1	7
Locomotor Ataxia	1		1
Congestion, Hemorrhage and Softening of Brain	18	9	27
Paralysis	5	1	6
Convulsions of Infants	2	2	4
Other Diseases of Infancy	12	11	23
Tetanus		2	2
Other Nervous Diseases	2	1	3
Heart Diseases	43	57	100
Bronchitis	4	3	7
Pneumonia and Broncho-Pneumonia	11	13	24
Other Respiratory Diseases	5	1	6
Ulcer of Stomach	1		1
Other Diseases of the Stomach	4	6	10
Diarrhea, Dysentery and Enteritis	31	24	55
Hernia, Intestinal Obstruction	2	1	3
Cirrhosis of Liver	7	7	14
Other Diseases of the Liver	1	1	2
Simple Peritonitis	1		1
Appendicitis	5	1	6
Bright's Disease	17	17	34
Other Genito-Urinary Diseases	8	7	15
Puerperal Diseases	5	6	11
Senile Debility	4	5	9
Suicide	5	2	7
Injuries	20	22	42
All Other Causes	19	11	30
TOTAL	299	271	570

Still-born Children—White, 17; colored, 22; Total, 39.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 13.19; colored, 32.19; Total, 18.33.

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

Mean atmospheric pressure 29.97
Mean temperature ..... 76.
Total precipitation ..... 16.80 inches
Prevailing direction of wind, southwest.

New Orleans Medical and Surgical Journal.

VOL. LXV. AUGUST, 1912. No. 2

Original Articles.

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

Gangosa.*

By SURGEON G. L. ANGENY, U. S. Navy.

The little island of Guam lies out in the vast expanse of the Pacific Ocean about 5,500 miles southwest of San Francisco. It is on an almost direct route from Honolulu to Manila, about 3,300 from the former and 1,500 miles from the latter port. Its area is approximately 200 square miles and its climate typically tropical.

The island was discovered by Magellan in 1520, when he circumnavigated the globe, and was at that time inhabited. The origin of these people is unknown. Physically they differ markedly from the Filipino and from the Kanakas, who inhabit most of the other Pacific islands. They are a dark-skinned race, somewhat short of stature, but hardy and robust.

For many years prior to its acquisition by the United States, Guam was under Spanish rule. Situated as it is outside the lines of trade, communication with the rest of the world was exceedingly rare. At irregular intervals a steamer from Manila visited the

* Read at the Ninth Annual Meeting of the American Society of Tropical Medicine, held at Atlantic City, June 3, 1912.

island and, during the height of the whaling industry, an occasional whaler touched there for water and provisions.

This island became a United States possession in 1898, since which time it has been used as a naval station, and its government administered by naval officers. Most of the diseases common to the tropics are found here, and several that are peculiar to Guam. One of these latter, *Gangosa,* I have made the subject of my paper.

The term "gangosa" is derived from the Spanish word *"gangoser,"* meaning "to snuffle." From this the masculine and feminine nouns, *"gangoso"* and *"gangosa,"* are formed. It has, however, become the custom of Americans to use the feminine noun indiscriminately in referring to this disease.

Gangosa has been prevalent in Guam and several other islands of the Mariana group for more than a century. The first report upon the disease was by a Spanish Royal Commission in 1828, but this report did not obtain wide circulation and practically nothing was known of the disease until 1898. Since that time it has been studied and reported upon by various naval medical officers who have been stationed in the island.

Leys, in his report in 1905, gave to the disease what he regarded as a clinically descriptive name, "rhino-pharyngitis-mutilans." By him, and by Mink and McLean, who reported upon it in 1907, it was looked upon as a distinct entity, and its lesions limited to the nose, mouth, and pharynx.

Gangosa may be imperfectly defined as a disease characterized by destructive ulcerations of the oral, nasal, or pharyngeal mucous membrane, and of the skin surfaces of the body. It may also involve the bony structures.

In its most typical form it begins as a small ulcer on the mucous membrane of the nose, soft palate, or posterior pharyngeal wall. The ulcer is at first superficial, with somewhat undermined edges. It is not accompanied by pain or other subjective symptom, and the patient is usually not aware of its existence until it has reached a considerable size. The ulcer spreads in all directions, but more rapidly in the planes parallel with the surface. The soft tissues over cartilage and bone are destroyed; the bone itself becomes necrotic, and is lost either by slow disintegration or *en masse.*

In the milder cases the destruction of tissue may be limited to a perforation of the nasal septum, or a scarring of the soft

Gangosa. 1 and 3 showing deformity from contracting scars.

ILLUSTRATING DR. ANGENY'S ARTICLE.

GANGOSA.

Illustrating Dr. Angeny's Article.

GANGOSA.

In some there has been an active lesion for more than twenty years.

Illustrating Dr. Angeny's Article.

palate, faucial arches, or posterior pharyngeal wall. In many cases, however, the process is much more extensive, the entire nose is destroyed, the antrums and orbits entered, both the hard and soft palate lost, and, not infrequently, one sees cases where the entire front of the face is replaced by a large opening ringed about by numerous foul ulcers, from the floors of which spurs of black, necrotic bone protrude.

On the skin surfaces the process is similar. The extremities and parts of the body not ordinarily covered by clothing are most frequently involved.

At times the ulcerations remain quite superficial and, while spreading at one edge, healing may be going on at another, or there may be healing at the center, with spreading around the entire periphery. In this way scars of large area are produced. Cases have been seen with scars several square feet in extent entirely enclosed by a band of ulceration not over an inch wide or a half inch in depth. These lesions frequently start in the nose, spread over the face, head, neck and shoulders and down on to the chest.

The scars thus formed resemble burn scars in their tendency to contract. One occasionally sees cases where the ulcer, first spreading over the face, involved the eyelids, eroded the cornea and entirely destroyed the vision; then, by contraction of the scars, the nasal orifices and palpebral fissures were obliterated, or the mouth so reduced in size as to make the introduction of food difficult.

When the lesions are located on the hands or feet great deformity is frequently produced, either by loss of tissue or by contraction of the resulting scars.

One other condition occasionally seen in these gangosa patients is a chronic osteitis. Thickening and deformity is produced, which may or may not be connected with the superficial ulcerations.

The duration of the disease varies from a few months to many years. All cases, however, seem to tend toward an ultimate recovery, and almost without exception the patient's general health remains good. Death, when it occurs, is usually from some intercurrent disease, such as tuberculosis, diseases of the respiratory tract, or from some gastro-intestinal disease, such as dysentery.

The process seems to be, in a measure, self limited. In no case did the ulceration extend into the trachea or involve the alimentary

canal below the level of the constrictor muscles. In no case was the mucous membrane about the anus or external genitals affected.

Numerous cases are seen giving a history of the occurrence of gangosa five to twenty years previously in which all lesions healed after several years of activity. These cases have shown no tendency to recurrence in the interval, and were, at the time examined, in seeming good health. Recovery had been without treatment.

The disease is found only among the natives and most frequently in the lowest classes and in those who live under very insanitary conditions. It is much more prevalent in the outlying districts and the remote villages of the island than it is in the large capital town, where about two-thirds of the entire population live.

Males and females are affected in about equal proportion. It occurs at all ages, except in early infancy. In none of the cases under observation from January, 1907, to August, 1909, was the age of any patient less than six years. Odell, however, has since reported a case in a child of twelve months.

Guam is a small community and there is considerable inbreeding among the native population. In most of the cases of gangosa, however, there is little in the family history to indicate hereditary influence. Occasionally two or more cases do occur in the same family. In one instance a mother and four children were afflicted. It was noted that all of these cases, including the mother, developed within a comparatively short period, about one year, and at a time when the youngest of the patients was over eleven years of age; suggesting more a common source of infection than hereditary influence. All of these cases were of the naso-pharyngeal type.

The most careful investigations by a number of competent workers have failed to demonstrate the presence of any bacterium or organism that could be regarded as the casual agent.

Diligent search has been made for the treponema pallidum, but without success.

Histological studies of the lesions reveals nothing peculiar.

Three theories have been advanced as to the cause of this disease:

First, that it is a distinct entity.

Second, that it is tertiary yaws.

Third, that it is hereditary syphilis.

The opinion that gangosa is a distinct entity has been reached more by exclusion than by any other line of reasoning. To many observers it resembles no other known disease.

The theory that gangosa is a tertiary manifestation of yaws was among the first to be advanced. The existence of a tertiary stage of yaws has, however, not been clearly established. A very large percentage of the natives of Guam suffer from yaws at some time during early life. Complete recovery is the rule, and there seems to be little ground for attributing any subsequent illness to this disease. Then some few gangosa patients deny ever having had yaws.

Yaws is found throughout practically the entire tropical world, but nowhere else, except in Guam and several neighboring islands, do we find gangosa.

The view that gangosa is hereditary syphilis has, of course, the most adherents. The disease, however, presents a number of features which it is difficult to reconcile with this diagnosis.

Surgeon Odell of the Navy has recently given added weight to this theory. In a report, published in the Naval *Medical Bulletin* of October, 1911, he states that the administration of mercury and iodids effected cures in a large portion of cases, and that 83 per cent. of a series examined gave positive Wassermann reactions.

Gangosa has been under close observation for more than twelve years. The sanitation of Guam and the medical care of its inhabitants has been in the hands of naval medical officers since 1899. During that time no case of primary or secondary syphilis has been seen in any native. Gangosa, in its present characteristic form, has been prevalent in the island for more than a century; it was there long before whalers sailed the seas.

There is absolutely no evidence that the disease is transmitted by sexual relation. Analysis of the family history, of gangosa patients, shows, in the vast majority of cases, an absence of the disease, usually for as many generations as the ancestry can be traced. It must follow, therefore, that if gangosa is hereditary syphilis the disease has been transmitted to the second, third, fourth and even the fifth generation.

Other stigmata of hereditary syphilis, such as brain syphilis, spinal syphilis, syphilis of the circulatory system, deafness, choroiditis, Hutchinson's teeth, and arthritis absolutely do not occur. Insanity and imbecility are almost unknown. Keratitis is occasionally seen, but is usually secondary to some corneal ulcer, is unilateral, and bears little resemblance to the keratitis of congenital or hereditary syphilis.

Surgeon Odell reports having observed gummata of the liver and spleen. Assistant Surgeon Halton, later, says he has seen no evidence of gumma of the internal organs, and this was the experience of the writer in approximately two hundred post mortem examinations made in Guam in 1907 and 1909.

Abortion, from any cause, is exceedingly rare among the native women. Female gangosa patients may become pregnant at any stage of the disease, in which event they go to full term and bear healthy children. No condition is seen that resembles syphilis of of the newborn.

The total population of Guam is approximately eleven thousand. There are on the island between three and four hundred cases of gangosa, fully 50 per cent. of which present mutilating lesions of the naso-pharynx. A series of cases of syphilis giving such a large proportion of lesions of this type is very unusual.

The statement previously made relative to the wide distribution of yaws and the limited area in which gangosa is found applies, with added force, to syphilis.

The facts submitted by Odell in his article appear very conclusive in the diagnosis of syphilis. He reports that practically all of his cases were improved, and about 75 per cent cent. cured, by the administration of iodids and mercury. This form of treatment has been tried from time to time by other workers, but without beneficial results. In 1908 a small number of cases were treated, for about two months, by deep muscular injections of mercury succinamid, but as no improvement could be noted at the end of that time, the treatment was discontinued. One very active case grew progressively worse under this treatment. During the same year there were 169 gangosa cases under treatment in the colony at Guam. Of this number twelve died of intercurrent diseases, and eighty, or about 50 per cent., were discharged with completely healed lesions. Only local measures were used.

In Odell's cases, it is understood, large doses of iodids were given and the treatment continued for long periods.

In connection with the Wasserman reactions, it must not be forgotten that yaws may have been responsible for some of the positive results. Assistant Surgeon Halton, in an article in the Naval *Medical Bulletin* of April, 1912, states that of eleven cases of active yaws examined all, or 100 per cent., gave positive Noguchi reactions, and of twenty-four cases giving history of yaws one or more

years previously, eleven, or about 45 per cent., were positive, while two hundred and eighty-one gangosa cases gave one hundred and five, or about 37 per cent., positive reactions. The majority of the gangosa cases had, however, been receiving mercury and iodids for varying periods.

Dr. Halton is of the opinion that the large percentage of positive reactions obtained in Odell's series is open to some question, as the Emery modification of the Wassermann test was employed. In this a plain alcoholic solution of an organic extract is used, which, he holds, will fix the complement in a large proportion of normal sera. Other laboratory workers, however, regard the Emery technic quite as reliable as the Noguchi test.

Dr. Halton also reports three cases of gangosa and one of yaws which did not improve under mercury and iodids, but which were rapidly cured by intravenous injections of salvarsan, and expresses the belief that yaws, too, must be considered an etiological factor in gangosa.

Dr. Jay Schamberg, of Philadelphia, with whom I recently discussed this subject, states that the clearing up of these cases under mercury and iodids is not at all conclusive of the diagnosis of syphilis, as it is a well-known fact that many of the infectious granulomata that are not regarded as luetic, such as actinomycosis, blastomycosis and sporotrichosis, heal under this form of treatment. He further states that the same holds true with salvarsan. That the curative effect of this latter drug is more pronounced in yaws than it is in syphilis.

At the time of the United States occupation of Guam the sanitary conditions of the island were appalling. The abodes of the natives simply reeked with filth. Houses swarmed with flies, mosquitoes and other vermin. Dogs, pigs and chickens overran everything inside and out. There was no attempt at sewage disposal, and the water supply was from open wells, which were little more than surface collections. The staple articles of food were rice and corn, usually very dirty and worm-eaten, owing to the difficulties attending drying and preservation in a tropical climate.

All this has been greatly improved, and to-day the sanitary conditions of Guam compare very favorably with those of most communities of equal size. For my own part, I think Agaña one of the cleanest little towns I have ever seen.

About 1905 reclusion of the active cases of gangosa was begun.

They were segregated in a colony adjoining the leper settlement. Here they were housed, fed and given medical attention. As soon as their lesions were healed they were released from the colony and allowed to go to their homes.

A marked reduction in the number of cases has been going on for some time. At present there are very few active cases on the island. New cases occur much less frequently, and it is predicted that the time is not far distant when gangosa, even in Guam, will be an extremely rare disease.

Pellagra in Hawaii: Report of a Case.

By DR. E. S. GOODHUE, Holualoa, Hawaii.

All diseases of uncertain cause are overwhelmed with nomenclature, and pellagra is no exception to the rule. The name by which it is now generally known is Italian for rough skin (*pelle agra*), and was first given to it by Frapolli in 1771.

The various appellations are significant of the locations where it was first observed, of the theories regarding its etiology and, in some instances, expressive of a prominent symptom, as *Mal de Asturias,* Lombardy erysipelas, Lombardy leprosy, *Risipola* Lombardy,*Lepra Italica, Mal de sole, Malattia insolato di primavera, Mal Roxo, Maïdesmus,* Psychoneurosis Maïdica, *Raphonia Maïsitica,* Scorbutus alpinus, *mal de la Rosa, Salso, Flema salada.*

Since its first endemic appearance in Spain, in 1735, pellagra has gradually increased its geographical area. Most of the states of Southern Europe have reported cases. It is prevalent in northern Spain, southwest France, north Portugal, north and central Italy, parts of Hungary, Roumania and Russian territory bordering on Roumania; Transylvania. In parts of Italy 5 per cent. of the country people suffer from the disease; 10 per cent of these are mentally deranged, and, according to Sormanni, from 3,000 to 4,000 Italians die of pellagra each year. Sporadic cases are reported from different sections of Africa, but the disease is endemic in Egypt, especially in lower Egypt, where the people are poverty stricken.

In Mexico, where corn has been and is now used extensively by the native population, also poor, badly housed and living under

* Read at the Ninth Annual Meeting of the American Society of Tropical Medicine, held at Atlantic City, June 3, 1912.

unhygienic conditions, pellagra is comparatively infrequent, being confined largely to Yucatan and Campeche.

Cases have been found in one or two of the Central American states, in Argentine, Brazil and, in 1906, several cases were reported from our own Southern States.

Since 1908, the disease has increased rapidly in these states, being found in all of them, and considerable alarm is felt in regard to a disease uncertainly attributed to the use of a food so important commercially as maize.

Several institutions for the care of pellagra have been established, and much careful study of the disease is being made.

So far as I have been able to determine, no cases of pellagra have been reported from the islands of the Pacific, and certainly none from Hawaii. The discovery of a typical, advanced case in a native Hawaiian who has never left our shores may give our zëist theories pause.

There are students and observers of the disease who claim that outside of countries where corn is used in some form indigenous pellagra cannot exist. They assert that the pellagra syndrome now so well recognized and described, is due to an intoxication caused by the continued ingestion of spoiled corn, which has, through the action of a microörganism, undergone a chemical change; that to maize toxins alone this syndrome is due.

Lombroso, who, as a resident of a country where pellagra is endemic, had ample opportunity to study the etiology of the disease, succeeeded in demonstrating the existence of three different toxins resulting from saprophytic growth on maize.

While chemically defined, these toxins could not be classified nor could the microörganisms inducing them be named.

Many of the symptoms which resulted from the inoculation of animals with these toxins resembled those present in pellagra, such as changes in appetite, eruptions, desquamation, loss of feathers in fowls, and diarrhea.*

Among others, Babes, Belmondo, Cortes, Erba, Ferati, Goseo, Hausemann, Mariani, Pellogro, Procopin, Pellizzi, Sion and Tirelli

*Dr. C. C. Bass, of New Orleans, has made a very interesting report of experiments carried on by himself at the laboratory of clinical medicine, Tulane University, where he produced in fowls a condition very closely resembling pellagra in man, by feeding them on meal spoiled with a culture of bacteria "supposed to be in some way or other connected with pellagra."—*J. A. M. A.*, November 18, 1811.

have isolated toxins from spoiled maize, and with considerable partisanship arrayed themselves on the side of zëism.

Even without special scientific and clinical basis for the opinion, it is not surprising that the earlier observers of pellagra in Italy and Spain should have attributed the strange disease to corn, which was extensively used by the people.

It is natural for primitive and ignorant persons to attribute a mysterious bodily perturbation to the influence of some alimentary product. Diseases are brought on by eating and drinking; diseases are cured by the same process!

Undoubtedly Casal, who, in 1735, first reported pellagra as an endemic disease in the province of Asturia, Spain, believed that the eating of corn bore some relation to the disease; and Mazani, in the early part of the last century, held that pellagra was a malnutrition due to the use of corn which lacked the necessary nutritive qualities. A few theorists still believe that an exclusive and persistent diet of good corn will induce pellagra, but, of course, the larger number adhere to Lombroso's theory of spoiled maize.

This theory is that the virus or poison is contained in the maize before it is eaten, the intoxication being caused by the product of chemical metamorphosis induced by a microörganism, itself innocuous. But Pellizzi and Tirelli claim that their experiments on dogs and rabbits show conclusively that the pellagrous symptoms were caused by the toxins of the microörganisms themselves, acting like other bacterial sapremias, while Neusser believes that the toxins do not prëxist in the maize, nor yet develop there upon the introduction of a microörganism, but appear in the intestines where there is an abnormal condition of the gastro-intestinal tract, induced by harmless substances which in health are digested and eliminated. Belmondo says that the toxin is produced in the body by bacteria introduced there with the maize. Another Italian, Belardini, believes that one of the many fungi common to maize, which he calls *veradame,* causes pellagra. Cesati names another fungus as a cause.

Carraroli has isolated a bacillus in cornmeal, also a bacterial product, and by injecting it into the skin of animals produced symptoms resembling those of pellagra.

De Giaxa attributes to toxins of maize the action of the colon bacillus, showing the modification the bacillus undergoes upon the

cultures of maize, while Marie elaborates a causation more complex than any so far stated.

This is in the nature of an autoinfection, induced by peculiar bacterial ferments taken into the stomach with the maize, and undergoing subsequent changes of a toxic nature, amorphous and polytoxic.

Pari's theory of a poison from smut (*Ustilago Maydes*) was quickly rejected, but Majocchi appeared with an organism he named bacterium Maydis, which he said he found in pellagrous subjects.

Alsberg, in a recent paper, states that when corn gets mouldy the embryo is first attacked, and that here the greater part of the bacterial decomposition goes on with the production of toxins.

It is the desire of the grower to increase the oil content of corn, and as the oil is found in the embryo, the larger the embryo the more oil, and, of course, the more bacterial decomposition and subsequent pellagra. "There is some evidence that some of the toxic substances are related to the fats, or at least have similar solubilities. This is a possibility worthy of further investigation in the light of the work of Foust and Tallquist upon the role of oleic acid in bothriocephalus anemia."

Dr. Pixley, of South Carolina, is of the opinion that rancid fats, "cornbread sopped in lard," food cooked with "fat back and side pieces," are a cause of prevalent pellagra.

Dr. Mizell, of Georgia, thinks that spoiled corn is not the only cause of the disease, but that cotton-seed oil is an important factor.

A pellagra commission appointed to investigate the disease in Tennessee found that the affection was prevalent in fifty-eight counties.

The following are some of the conclusions relating to etiology:

"The disease has appeared rather simultaneously at widely different points, not in any way related to each other, either as to avenue of infection, or as to similariety of local conditions.

"The epidemic of pellagra in the United States has appeared in disregard of all laws of epidemiology. Secondary appearance fails to sustain either view of the etiology of the disease to the exclusion of the other. Such persons exposed may partake of the infected or poisoned foods, contract the disease through the bite of an insect, or may become contaminated in some other way.

"Approximately 95 per cent of cases admit the use of corn meal in some form, and, while many are tempted to mislead, there seem to be authentic cases of abstention from corn in all its forms.

"While this is a disease of poverty and bad hygiene, many cases have appeared in well-to-do families, with good hygienic surroundings. The amelioration or disappearance of symptoms in cold weather suggests a strong climatic influence upon the course of the disease. It is possible

that food cereals, and especially corn meal, serve as vehicles of transmission, and that the infection exists in granaries and elevators, and that the obstacles to its transmission in this way are great enough to account for the relatively few cases of the disease."

An investigation under the supervision of the U. S. P. H. & M. H. S., in Kentucky, reports that "practically every case occurred in families in poor economic circumstances and living under rather unhygienic conditions."

It was found that corn products formed a common article of diet, and that most of the pellagra originated near or within five hundred yards of a stream of water.

Dr. Thornington, of Birmingham, believes that the origin of pellagra is parasitic, due to the bite of a mosquito, and Dr. King, of Nashville, reports eleven cases as a result of infection from one patient brought to the Nashville Institute of Charity. Dr. Bass, in reporting the case of a patient affected by pellagra who was in the habit of eating over a pound of cornstarch a day, concludes that, "inasmuch as hookworm disease is a frequent source of perversions of appetite, it is reasonable to presume that we have in this instance a case of pellagra indirectly caused by hookworm infection. The cause is further evidence of the correctness of the maize theory, and a warning against the use of foods made from corn of doubtful quality, such as corn starch, corn syrup, corn whiskey, and corn flakes."

According to Lavinder and several other observers it is impossible to detect the gross distinctions between sound and spoiled maize, as important chemical changes may well occur before there is any microscopical evidence of decomposition.

Dr. Bowling, of North Carolina, whose reports show careful observation and intelligence, is pronounced in his belief that pellagra is not contagious. He does not accept the moldy corn theory, and says with reason that if the eating of spoiled corn produced any symptoms they would be those of acute ptomain poisoning. He believes that if there were pathogenic germs in maize they would be destroyed by the process of cooking. Nor does he accept the buffalo gnat or sand-fly theory, because these insects are not found in the South, where pellagra is prevalent.* In his opinion the disease is caused by "some pathogenic germ that possibly has not yet been isolated; that this germ gets into the stomach, and if the

* *Similium reptans.* According to investigations by Dr. L. O. Howard, Bureau of Entomology, U. S. Department of Agriculture, this fly is not found in North America south of Greenland.

stomach is not in a normal condition it finds lodgment in the intestinal tract, and causes pellagra."

These are a few of the theories advanced by those who are clinically familiar with pellagra, indicating that there is yet no true scientific basis for positive statement. Even Lombroso says in his introduction to Marie's book:

> "It is impossible at once to estimate the harm which has resulted from the many visionary and obscure theories that have been advanced regarding the etiology of pellagra. The most diverse and untenable hypotheses have been considered in turn."

To the ordinary student of the subject it would appear more reasonable to attribute the disease to toxicochemical action of bacteria or moulds, not only upon corn, but other unknown articles of food. Undoubtedly the various fungi common to maize have toxic qualities, and, when introduced into the human body, produce toxic effects, with symptoms resembling those of pellagra.

Ustilago, or maize blight, sclerotum maydis, sporiosum maydis, are poisons, and induce symptoms quite characteristic of their genus. Hausemann shows that other substances, whose constituencies resemble those of maize, may form similar toxins.

Scheube says:

> "Examples of such are familiar in the case of salted or smoked fish, in which is developed a toxin analogous to sausage poison, or which, in other cases, are capable of originating choleraic symptoms due to a toxic agent analogous to a cheese poison, and yet, in other cases, cause urticaria and diverse skin eruptions."

And Lavinder, in his "Etiology of Pellagra," tells us that extracts from other grains "similarly spoiled may likewise contain similar poisonous properties."

These disturbances, due to "eroum," a vegetable resembling the vetches, were traced to their cause by ancient observers like Hippocrates and Galen. In the seventeenth century they had become so general, owing to the use of vetch, that its use was forbidden by special edict.

Verney points out that the symptoms of pellagra resemble those of arsenic, alcohol, mercury, lead and phosphorus poisoning, and still more, intoxications from chronic favism, the condition called *fiema salada* by the Spanish, and the result of eating spoiled wheat.

In lathyrism traced to the use of meal made from vetches and various kinds of grass, pea (Papilonaceæ, chiefly the lathyrus sativus, and lathyrus cecera) we have many of the symptoms of

pellagra, especially the spastic paraplegia and atrophy, while the prolonged use of grain containing ergot or the claviceps purpurea will induce in most persons symptoms equally grave.

Guerewitsch has found that the chief feature of ergot psychoses were diseases of consciousness, intellectual weakness and apathy.* Early in its history, pellagra was thought to be an errant or atypical form of leprosy, syphilis or scurvy. These observers were, for their time, good diagnosticians, recognizing the disease as specific, with morbid phenomena all its own.

It is surprising to find Winternitz denying its specificity, claiming that it is only a disease caused by poor hygienic conditions.

Hyde says:

"The exact etiology of the disease should rather be traced by the statesmen and politico-economists. The wretchedness, poverty, poor food, and hopeless moral and social condition of the inhabitants of the pellagrous districts, many of them toiling under a burning sun, half starved, emaciated and despairing, should explain largely the symptoms of the scourge which afflicts them.

"Certainly, there is here to be found a very satisfactory explanation of the failure of several writers on the subject to describe the disease of such typical aspect and career as to command recognition of its distinct and special identity."

In Italy, Roumania, parts of Russia, hereditary syphilis and chronic alcoholism are very common.

There is no question that the cause of pellagra, whatever it may be, is more active among the poorly-fed and inadequately-housed than elsewhere. Insanitary conditions, starvation, unhygienic surroundings, all encourage the introduction and maintenace of disease. Who will say that the cause of plague is filth; yet who can deny that its ravages are confined almost absolutely to those living among unhygienic surroundings?

To some extent, it is so with most diseases. The same sort of reasoning attributes the skin lesions of the disease to sunburn. *Mal de sole* is one of the names of pellagra. The lesion is accentuated by exposure to the sun's rays, as the eruption of eczema is made worse by exposure to bright light.

Ten years ago Ceni wrote that he had found the cause of pellagra was due to an infection by aspergillus fumigatus, or the true moulds. He discovered that the spores, after being taken into the stomach, passed through the intestine into the lungs, pericardium and pia mater, and so induced morbid changes in the tissues.

* St. Petersburg *Med. Wochenschrift*, 1911.

Recognizing the fact that pellagrous symptoms were worse in the spring, he claimed that the toxicity of the aspergilli is greatest at that season, corresponding with the "cycle of the annual biological evolution" of these spores. Later claims are the discovery of a streptobacillus pellagræ by Tizzoni.

In 1905, before the British Medical Association, Sambon suggested that the disease might be due to a protozoon, and investigations have been, and are being, made in regard to the buffalo gnat and the mosquito as a possible carrier of the disease.

While the history of pellagra cannot be traced farther back than 1735, it is possible that the disease existed, and was not recognized or described. From Southern it spread to Northern Spain, to Italy, Southwest France, Roumania and Corfu. In 1902, cases were reported from Russia, Portugal and Austria, and, since 1905, from most of the Southern States. In late papers Dr. Zellers reports that there are 50,000 cases in Georgia alone, but I believe that this estimate is too high, and that 10,000 cases in the United States is nearer correct. It is quite possible, also, that the disease was not recognized in these States, but probably that it has increased rapidly in the last ten years. This has been attributed by the advocates of zéism to the fact that the seasons have been unsuited to the ripening of maize, that much of it has been shipped in a mouldy condition, and that the worst of it is bought by those living in the poorest and most insanitary quarters.

The fact that corn is used extensively throughout New England and the Middle West, where pellagra does not prevail, is met by the statement that the corn grown in those sections is a harder variety, not so subject to mould; that the product is better ripened in the fall, and the inhabitants who use it are of a better class. The same argument is used to account for the comparative infrequency of pellagra in Mexico, Southern Italy, and other sections where corn is grown and used as a common food.

Carefully-compiled statistics have shown that the "reputed historical facts with regard to the relation between the introduction of maize culture and the appearance of pellagra are incorrect; that the areas of maize-growing and pellagra epidemicity do not coincide, and that pellagra has been observed frequently in parts of France, Spain and Italy where maize is not cultivated."

Verney, himself a zëist, acknowledges that the theory of spoiled corn does not apply to many cases of pellagra, and Gosie agrees

with him. Neusser, in Roumania, saw many pellagrins who had never tasted corn. Verney says that the intoxication theory seems to be refuted by the persistence of pellagra after the use of corn has been abandoned by the patient. Pons Sanz has fully reported upon an endemic of pellagra in Bodagoz, Spain, where the inhabitants neither grow nor import maize.

The American Indian, who has grown and eaten maize for generations, is free from pellagra. Several sporadic cases are reported where pellagrins had never eaten any preparation of corn, and the patient whose case I now report to you is a native Hawaiian, who has never been out of Hawaii, and who has never used maize in any form.

Hyde says it is certain that individuals have suffered from pellagra who have never partaken of maize, and continues: "Authors have, indeed, sought to distinguish between pellagra and pseudo-pellagra by establishing a difference of cause only, but this is futile. In cachectic men and women who have never been exposed to the sun and have not been known to be poisoned by eating decomposed and fermented maize, all the symptoms of pellagra have been noted."

French students of the disease living in districts where maize is not used, but where pellagra is prevalent, naturally oppose the zéitoxic theory, and Landouzy has furnished some rather convinc-
pellagra," by Roussel, a countryman, who takes the opposite side.
ing reports on the subject, his cases, however, being termed "pseudo-

Investigations of this kind should be free from partisanship, and Manson is quite correct in his reference to the term pseudo-pellagra:

> "The disease is pellagra when it fits in with the orthodox theory, and when it can in any way be connected with maize, but when this not possible, the disease becomes pseudo pellagra."

The pathology of the disease I have had no opporunity to study. According to Lombroso, Tuczek, Belmondo, Tannini, Mane, Scheube, Batten, Russel, Dejernie and Raymond, there is congestion and thickening of the leptomeninges, hyperemia, anemia and edema, subarachnoid hemorrhages, sometimes atrophy of the cortical substance of the cerebrum. All cases showed an involvement of the posterior columns of the spinal cord, with a symmetrical sclerosis that included Goll's columns particularly.

Tuczek concluded that the disease was due to an extensive

sclerosis of the spinal column, as a result of chemical intoxication analogous to that of ergotism and lathyrism.

The spinal and sympathetic ganglia remain unaffected; changes were greatest in the thoracic portion of the cord, but the posterior columns were more invaded than the postero-lateral columns.

In six cases a similar change was found in the postero-lateral columns, along the course of the lateral pyramidal fasciculus. Batten and Tuczek both found degeneration of the anterior horn in a few cases. Conclusions were that when the disease is relatively recent, the posterior columns only are involved; later the pyramidal tract gives evidence of disease. In very advanced cases there was a postero-lateral sclerosis of the columns of Goll and Burdock, and the crossed pyramidal tracts.

Cadaver, as a rule, emaciated, with absorbed fat, and muscular atrophy. Pigment present in heart, myocardium, hepatic cells, spleen and anterior and posterior horns of spinal cord. Liver enlarged, pigmented, with frequent fatty degeneration. Spleen generally atrophied; kidneys as well, or showing fatty degeneration. Walls of intestine thinned, mucosa of rectum and colon showing hyperemia and ulceration.

The symptoms of pellagra, both subjective and objective, are so numerous and variable that it is difficult to make a specific classification. No doubt the existence of many of the symptoms and their modifications are due to dietary, topographical, climatic, racial or idiosyncratic factors, which have not been sufficiently investigated, and for this reason, as in leprosy, the incubation period remains uncertain, ranging from a few weeks in fulminant pellagra to two or three years. This fulminant form, which, according to Dr. Anders, is prevalent only in the United States, proves fatal in from four or five weeks to as many months; whereas in Europe the disease runs a course of at least five years. It is very generally acknowledged by Italian, French, and later American observers of the disease that the symptoms of pellagra abate towards autumn, are much ameliorated or entirely disappear during the cold winter, to reappear in the spring—that is, from February to May—with pronounced severity. These exacerbations may continue for several years, ending in final recovery or gradual exhaustion and death.

There is a second seasonal exacerbation, corresponding to renewed vegetable growth, in the fall. Sandwith has called our attention to this correspondence in Egypt, and Dr. Dock to the same

phenomenon in Southern Louisiana. This observed periodicity no doubt suggested the possibility of protozoan infection, with regular biological cycles, as in diseases like trypanosomiasis, malaria, and possibly tick fever, dengue and other diseases, but it would seem more reasonable to suppose that the improvement in the condition of pellagrins, being generally variable, irregular, and sometimes absent, is due to climatic influences—the tonic action of cold, the wearing of heavier and warmer clothing, with less exposure of the body to sunlight, and more stimulating food. A small improvement in hygienic conditions will often be productive of large results in diseases as sensative as pellagra to exogenous influences.

I do not think that the sequence of symptoms hardly warrants an arbitrary division of pellagra into three stages, placing such symptoms here and others there. Geber claims that the first indication of a morbid process is a languid, tired feeling, with transient pains in the head and spine, these symptoms disappearing in winter, to return with warm weather.

But a large number of clinicians agree that the most constant prodromal symptom is gastro-intestinal—indigestion, pain and burning in the region of the stomach or bowels, eructation, "heart burn," attended by attacks of diarrhea, but quite frequently, in the early stages at least, with constipation.

Agostini, in his investigations, found that the stomach of the pellagrin contains little or no hydrochloric acid, and this has been confirmed by other students of the subject, particularly Bowling, of North Carolina. Urine is diminished, its specific gravity decreased and the excretion of urea, chlorides, especially phosphoric acid, lessened.

Towards the last, fever sometimes sets in, the typhosus pellagrosus of the Italians—probably only the final efforts of nature to save the emaciated and devitalized hulk.

The erythema of pellagra may occur without precursory or accompanying symptoms, and disappear permanently. Scherber has recorded such a case. Or the disease may last fifteen to twenty years, Scheube says, finally ending in the typical aggregation of symptoms. There may be bulimia, or loss of appetite; thirst, or the reverse; sometimes nausea and vomiting, abdominal pain and distention, borborygmus, chills or chilliness, in a few cases dysenteric discharges with blood. Occasionally there is fever, generally ranging from 100° F. to 102° F., variable, and disappearing with the

subsidence of the fresh eruption. A common symptom is stomatitis, with a red, and, often, a fissured tongue, accompanied by salivation and pyrosis.

After a period of from several months to three years or more an erythematous eruption occurs—a true exfoliative dermatitis—generally over the backs of the hands, with a line of demarkation at the wrists, or extending up the forearms. In a majority of cases, perhaps, the same eruption appears on the face, neck, chest, dorsal surface of feet, and on the legs.

In the case of those who go naked in the sun, as the Fellahs of Egypt, the erythema may appear upon other portions of the body. In my Hawaiian patient, who was in the habit of remaining a good deal in the sun, we find pigmented patches over back, breasts and legs. There may be patches upon the abdomen and buttocks. Dr. Bass reports an extensive erythema on forehead, malar prominences and chin, which was preceded by an eruption over backs of hands. He had a case also where the palms of the hands were affected. This erythema, which Delacourt says may be the first symptom to usher in pellagra, is of a reddish, lurid hue, depending, however, upon the complexion of the individual, and whether the affected part has been subjected to sunlight; it is rough, disappears on pressure, like other erythemas, itches and burns. It is edematous and infiltrated at the outset, but, as the skin begins to desquamate and fall off in large scales, the skin shrivels and takes on a darker hue. There may be blebs, excoriations, encrustations and bullous efflorences.

In a very interesting reprint on the cutaneous lesions of pellagra, for which I am indebted to the author, Dr. Howard Fox, of New York, he takes up the study of some fifty cases which came under his personal observation. He found that the color of the lesions was not characteristic, the eruption in whites being of a bright red color; "no one color could be said to be absolutely characteristic of pellagra, as the violaceous color of lichen planus, the yellow of xanthoma, or even the lean ham color of specific lesions." But the lesions on the neck—"neck-band"—resembled those described by Prof. Merk, and were "absolutely distinctive."

In many cases the dermatitis was found upon the front as well as the back of the wrist, but few showed face lesions. The eruption was found upon the dorsal surfaces of the feet, in some cases; in others it covered the greater portion of the legs and resembled an

eczema. The usual sites were the hands, wrists, neck and dorsal surfaces of the feet, but, in one case, both elbows and knees showed sharply-defined patches. These, says the author, might have been taken for psoriasis, had the scaling of that disease been present.

In dark races these scales are black and leave a pigmented, purplish-blue skin underneath. After repeated attacks the skin is left permanently pigmented, finally becoming thin, wrinkled and loose, like skins in which senile degeneration has taken place. Fraser reports a case where a severe dermatitis appeared seventeen days after the first gastro-intestinal symptom.

Coincidently with the various symptoms, but not constantly so, nervous perturbations occur. There are headaches and flying pains, vertigo, disordered vision, as diplopia, muscæ volantes; ringing in the ears, sleepiness, insomnia, hyperesthesia, such as itching, burning, sensations of cold and heat, formications, a sense of constriction, numbness.

Melancholia is almost always present; excitability, a tendency to weep. The patient looks utterly woe-begone, may be dull and lethargic, convulsive, epileptiform, and finally become demented or violently insane, or die of acute meningitis. In perhaps a majority of cases there is tenderness over a whole or part of the spine.

Early in the disease, the knee-jerk, Babinski reflex and ankle clonus are increased, but after the postero-lateral columns have been extensively involved these reflexes are abolished. Pupil reactions, as a rule, negative, and without great significance. Hallucinations are common; severe cramps in the legs and toes, with a gradual, persistent weakness, and atrophy of the extensor muscles of hands and feet. Strambo has noticed, with melancholy, loss of memory and suicidal tendencies.

In the last stages of this disease there is spastic paraplegia, the patient becomes helpless and bedridden, finally dying from exhaustion or some intercurrent disease.

With a fondness for names that is confusing, the Italians have called this last stage *tabes pellagrosa*. The vaso-motor and trophic changes observed in the gradual advance of the disease present the usual picture, shaded by variations according to nerve tracts involved, and extent. With slight involvement there are increased patellar, plantar, clonus and skin reflexes, as well as quick papillary response to light and accommodation. But, as the postero-lateral columns of Goll and Burdack become sclerosed, with the possible

inclusion of the crossed pyramidal tract; as the anterior and posterior horns become affected, and, according to Marie, cells of the gray substance of the posterior and lateral and posterior columns, we get paraplegia, the abolition of all reflexes and reactions.

In advanced stages of the disease, and before the patient is forced to bed, the pellagrin's gait is paralytic-spastic, and, after being bedridden, bed-sores supervene, due, as in other diseases, to pressure. As a rule, the sense of touch, temperature and pain remain more or less acute.

While in advanced leprosy we find anesthesia, and an inability to differentiate between the double and single or triple touch, here we find unmodified tactile sense.

Scheube states that both sexes are equally attacked by pellagra. Beall, of Texas, says that, while there may be equal susceptibility, his figures show that a larger proportion of females are attacked. As to age, it appears that none are immune, but infants and children are rarely attacked, the ages of greatest susceptibility being between 40 and 60 years.

As with leprosy and many other diseases, there seems to be unaccountable individual susceptibility or predisposition. One or two members of a family, living under similar conditions and equally exposed, will contract the disease, while the rest escape, or seven or eight in a house become pellagrins and one does not. Lombroso believed that the disease is hereditary.

In the diagnosis of pellagra in advanced cases, especially where the disease is prevalent, there is hardly possibility of error, and in incipient cases, where there is endemic pellagra, diagnosis should be easy. But when the disease has not previously occurred in a country, as in the Hawaiian patient, her earlier symptoms might well be easily overlooked. Even the completed syndrome might be mistaken for leprosy, with which it often occurs in the Spanish provinces of Galicia and Asturia, or for sprue, said by Burnet, of London, to be "one and the same with pellagra."

The differential diagnosis between pellagra and leprosy cannot be considered here, but sprue, in its gastro-intestinal manifestations, with the exception, possibly, of a constant diarrhea, much resembles pellagra. Yet the gradual progress and pathological process of pellagra are different, and its cutaneous lesions are characteristic. The etiological factors, obscure as they are, would serve to differentiate the two diseases.

Only a careless student could finally mistake pellagra for sunburn, vitiligo, eczema, erythema multiforme, lupus vulgaris, simple exfoliative dermatitis, syphilis, scurvy, posterior spinal sclerosis or primary lateral sclerosis.

Sunburn is not followed by the exfoliation of large flakes, such as we see in pellagra. The desquamation, if any, will be furfuraceous. As Dr. Fox says, the entire absence of scaling in vitiligo makes a differential diagnosis easy. I saw a case of squamous eczema of the dorsal surface of the hands which, with other evidences of pellagra, might have made diagnosis doubtful. But there was no itching, which we find in eczema, and there were none of the other symptoms that are found in nearly all cases of pellagra.

Dr. Fox mentions the case of a negress at Columbia with an eruption "upon the face which I would certainly have called lupus erythematosus if the patient had not given a history of rapid appearance and disappearance of the lesions, together with other typical pellagrous symptoms."

In a series of cases in which the Wassermann reaction (Noguchi modification) was applied, Dr. Fox concludes that:

I. Cases of pellagra do not often give a positive Wassermann reaction.

II. A positive reaction, when obtained, is generally weak, and is easily distinguished from the strong reactions found in syphilis and in many cases of leprosy.

III. The value of the Wassermann test is not affected by the findings of pellagra.

Dr. Bass exhibited some lantern slides showing pellagra patches on the breast and foreskin. Not many cases presented pustulation, but, as in my Hawaiian patient, there was fissuring of the knuckles. In negroes the pigmentation was jet-black.

The prognosis in pellagra is not usually favorable, although recoveries have been reported. These were in the incipient stages, or atypical forms, like that case, in which there was no symptom except the erythema.

This diagnosis, as well as others based upon symptoms common to many morbid conditions, although occurring in districts where pellagra is endemic, can hardly be accepted as established. The fact that the abandonment of maize as an article of diet by the pellagrin does not modify his disease is baffling, to say the least. In our

present state of uncertainty regarding the etiology of the disease we must at once forbid all foods which might cause the disease, place the patient under the best possible hygienic conditions, and supply him with plain, nourishing, digestible food. Milk, meat and eggs are recommended as a basic diet. The administration of Fowler's solution, recommended by Lombroso, has been found highly satisfactory.

Drs. Crowell and King, of South Carolina, have found the use of salvarsan of great benefit in a number of cases, and Fraser, of the same State, recommends urotropin (hexamethylenamin) in doses of seven and a half grains, as well as Fowler's solution, five minims three times a day, in all stages of the disease. Niles, of Georgia, lays great stress upon the dietetic treatment of pellagra, especially in the earlier stages of the disease, claiming no cures, but an amelioration of the distressing symptoms. Transfusion of blood has been done by Drs. Cole and Winthrop, of Alabama, in "the severe type of case." In their series of cases of terminal pellagra, recoveries were 60 per cent, against 10 to 20 as a result of all other therapeutic measures in similar types.. This radical treatment, says Dr. Cole, "must be undertaken with a full knowledge of the difficulties and dangers of the operation.

Sulphur and calcium sulphide have been used to advantage. Mizzell, of Georgia, gives one-half to two or more grains three or more times a day till effects, asserting that "sulphur is practically, if not positively, a specific."

Dr. Bowling states that he has had good results from the use of chlorine water as a gargle and internally. Also fluid extract of condurango and Fowler's solution.

In the case which I have reported, the prognosis, of course, is unfavorable, but, under improved hygienic and dietary conditions, and the administration of arsenic and sulphur, I have noticed a considerable improvement, both in the intestinal and the cutaneous symptoms. Were the patient willing, I should be tempted to make use of the transfusion method.

In any case, we must treat the disease as an entity, not as a series of symptoms, for I believe, with Delacourt, that "pellagra is not to be considered as an ill-defined pathologic condition, a kind of diathesis, a gastro-intestinal affection, accompanied or followed by various nervous accidents, but rather as a clearly-defined affection

characterized by phenomena which can be divided into a succession of pathologic states."

February 1, 1912—Report of Case: The patient, Mrs. K., is a housewife, 26 years of age, born in Hawaii. Her father, three-quarters Caucasian and one-quarter native, was born here, and died a year ago of typhoid fever, at the age of 50 years. Her mother, pure Hawaiian, died at the age of 40 years, of dystocia. An only brother was taken to Molokai as a leper. The only other members of the family are two sisters, at present in good health. Her husband is also healthy. She knows of no relatives suffering from cutaneous disease.

Has been married five years. No children or miscarriages. Was a strong, healthy girl, and began to menstruate at the age of 14 years. Seven years ago she had an attack of typhoid fever, from which she fully recovered. No other illness of a serious nature.

In July, 1910, I was called to see her at her home. She was suffering from severe abdominal pains, with dysenteric discharges tinged with blood. Tongue red; breath foul. A slight erythema over forehead, and malar prominences and backs of both hands. This was hardly a dermatitis; disappeared on pressure, and soon passed away. The diarrhea stopped.

I did not see the patient afterwards, and do not know if scaling occurred or not.

Patient lived in fairly comfortable circumstances, and as hygienically as others of her class. Has good clothes, is well housed, and all she wants to eat. Has lived, like other Hawaiians, on fish, fresh, dried and salted; fresh and dried beef, taro, sweet potatoes, *poi,* rice, with the fruits and vegetables common to the country. Has never used cereals, corn meal, corn flakes, germea, oatmeal. The only bread eaten has been wheat bread. Did not know that corn starch was used as food.| Has never taken brandy or corn syrup, nor has she used cotton-seed oil in any form. Never eats bacon or other fats, except occasionally fresh poru at a *luau.*

During the summer of 1910, patient felt fairly well, but in November she had considerable gastro-intestinal trouble, burning pain in pit of stomach, pyrosis, which she attributed to indigestion. Bowels constipated, as a rule, but occasionally there were attacks of diarrhea, although no change had been made in the diet.

During the second summer the symptoms did not abate. Tongue sometimes furred, sometimes red; flying pains in the head, specks before eyes; couldn't think *polole* (straight); memory seemed to be weaker; loss of appetite; some fever; great thirst; ringing in ears till she was confused and dizzy. About this time, epileptiform attacks began to develop, and these have continued at more frequent intervals.

In September there was an eruption over back of hands, forearms, malar prominences, neck, feet and legs. It burned and itched at first. All the skin grew flabby; insomnia followed, with severe cramps in the toes and legs. Often patient was chilly, even when it was not cold, and sometimes there were night-sweats. She got excited over small things; was melancholy, and wept a great deal, feeling herself grow weaker every day.

In October, while I was in California, she decided to go to Honolulu and see a doctor. Dr. Straub took charge of the patient for a few months and returned her to Hawaii.

At this time dermatitis covered back of hands, over left elbow, feet, legs, cheeks and forehead. There was edema, and subsequent exfoliation. Then pigmentation of affected areas, more pronounced upon hands, feet and legs, than elsewhere.

On arrival in Honolulu she went to the sanitarium, but grew rapidly worse, and, after two months' absence, came home.

Examination showed the patient to be greatly emaciated and anemic.

Pulse 75, rather weak and compressible. Temperature normal. Respiration normal. Tongue reddened. Heart, lungs, liver and spleen apparently normal. Facial expression anxious, with a woe begone look. Pupils moderately dilated, reacting to light and accommodations. Patellar and Babinski reflexes abolished; ankle clonus as well. Skin reflexes normal with no discoverable sensory disturbances, except in numbness of feet and legs. Spinal region tender to pressure. Extensor muscles of arms, hands, feet and legs much atrophied, with spastic paraglegia of about two months' standing. Has not left bed since returning in December

While being questioned, the patient burst into tears. She would answer a question, then a few minutes after modify or recall it.

Upon attempting to walk, patient exhibited the characteristic spastic gait, with rigidity of the legs, but no incoördinate or choreic movements.

The skin shows deep pigmentation over back of hands, somewhat over forearms and left elbow, a patch on the neck—"neck band"—also on feet and legs, when extensive foliation is going on, the skin coming off in large, black flakes. Nails brittle and fissured; insides of fingers reddened and cracked. Patches of pigmentation were present in spots on back and buttocks, resembling, somewhat, certain manifestations of the syphilides. According to the solar theory, these might be due to the patient's habit of bathing in the sea and going naked in the sun. Skin over arms and legs somewhat purplish, loose and flabby. Glands normal. No ptosis.

I did not see patient early enough to get the increased tendon reflexes, as they were undoubtedly present before the extensive changes in the postero-lateral columns had taken place. Normal skin reflexes were indication of undisturbed sensory tracts. The patient's tactile sense is good; also sense of cold and heat; rather hyperesthetic, if anything. Urine slightly acid; specific gravity, 1010; no albumen, no sugar, mucin, and increased phosphates.

The photographs, the best I could secure under the circumstances, are not as clear as I would wish, but show very well the eruption over hands and forearms, desquamation of patches over legs, some pigmentation, and the spastic paraplegia.

The case is one of unmistakable pellagra, developed without the use of example of similar symptoms in others in the country, or use of any of the food products to which the disease has been attributed in other countries where pellagra prevails.

The Principles of Tropical Hygiene.*

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(Studies from the Laboratories of Tropical Medicine and Hygiene, under the Direction of Creighton Wellman, Medical Department, Tulane University of Louisiana. No. 20.)

In the symposium and discussion which compose the scientific program of this meeting, various aspects of disease-prevention in the tropics will be taken up in more or less detail by my colleagues

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who will address you, and I have been asked to present brief consideration of general principles that will serve as a preliminary survey of the field which will be covered by the different papers to be read.

Such a presentation can, therefore, only be expected to take up the broadest general lines of the subject, and but few illustrative conditions and details can be included.

We may ask ourselves, at the very beginning of our discussion: What is tropical hygiene? And, as a rough working definition, sufficient for the purposes of this paper, we may say that tropical hygiene is the science and art of conserving individual and public vitality in warm countries.

This science and art is founded upon certain well-defined principles, which may be divided into three groups:

I. Questions Arising from Differing Causes of Disease.

From this standpoint all tropical diseases may be classified in the following categories:

(1.) *Diseases Due to Chemical and Physical Agencies.* Examples of such diseases are the various intoxications arising from the native use of unsuitable foods, such as, for instance, the lathyrism of India. Such a disease is to be combatted by changing the rations of the susceptible persons.

Another example is to be seen in the sun-traumatism occurring in tropical countries, and such injuries are preventible by using devices to protect the brain and spinal cord from the direct rays of the sunlight.

(2.) *Diseases Due to Vegetable Parasites.* Under this head we might name cholera, bubonic plague, Malta fever, leprosy and various tropical skin affections. In some of these diseases, like cholera, water supplies and food are to be guarded, if epidemics are to be checked. In others, insects and domestic animals are involved in the problem, while still others are spread by personal contact.

The principles by which this class of affections may be brought under control are diverse, and include not only ordinary sanitary measures, but also questions of immunity and the use of serums and vaccins. The progress already made along these lines gives great hope for the future.

(3.) *Diseases Due to Animal Parasites.* These include affections caused by microscopic unicellular animals (protozoa), and those caused by the so-called metazoan parasites (worms, etc.) Malaria and amebic dysentery are types of protozoal diseases, and hookworm and endemic hematuria of worm infections.

In this large class of affections, some other animal than man is often a factor in their spread. For instance, malaria is spread by mosquitoes and tapeworms by domestic animals.

Under such conditions, great hope of the ultimate eradication of these diseases from the world is permissible.

If malaria were transmitted directly from patient to patient, like, for instance, smallpox, the disease would possibly in time depopulate the earth. But the fact that part of the time the disease is, so to speak, resident in the frail body of the tiny insect, affords us a cue as to how to attack it. In other words, there is a weak link in the chain of nature where science can hope to step in and stop the process. From the standpoint of hygiene, the place to treat malaria is in the mosquito. If all mosquitoes could be destroyed, our cases would get well, and future cases would not occur. The same principle applies equally to other tropical disease problems.

(4.) *Diseases of Unknown Causation.* It is here that we are the most perplexed, oftentimes, since, without knowledge of the casual agent and its method of dissemination, a rational scheme of prevention is impossible to devise. The great need of research work to elucidate the causes and means of spread of the still obscure tropical diseases is, therefore, a question of great and pressing moment.

An instance of this is familiar to my hearers. Before the discovery of the mosquito transmission of yellow fever, we were working in the dark with our preventive methods which, if successful at all, were successful by accident, so to speak, and not because of any well-founded forethought. It is true that some procedures, like the Holt apparatus for disinfecting ships, for instance, were of value, in that they incidentally killed mosquitoes; but a well-considered and complete campaign became possible only after research had established the natural history of the disease.

Many other diseases of tropical origin are crying for investigation, that they, too, may be met and conquered by hygiene.

Let us now turn to

II. Questions Arising from the Distribution and Endemic Features of Disease.

Among problems under this head we may mention:

(1.) Those presented by the diseases already endemic in tropical countries. Such diseases may also become epidemic at different times and places. The manner in which sleeping sickness in Africa has followed up the opening of new trade routes, carrying death and devastation in its wake, is a terrible example of this possibility.

Diseases have also been carried from one tropical country to another. Several years ago, here in New Orleans, I pointed out this possibility in the following words:*

"A striking illustration of the moving of a disease from one tropical country to another is the introduction of malaria into Mauritius. This beautiful island was, until recent times, free from malaria, when either the proper mosquito or the proper strain of malaria germ was introduced by ships from India. The disease swept in a raging epidemic over the island, leaving in its wake a frightful mortality. The Seychelles and many islands in the Pacific are yet free from malaria, but the danger of infecting these healthy spots, so to speak, is constant and imminent."

Other similar examples might be cited illustrating the necesisty of a scientific understanding of disease problems before undertaking tropical exploitation.

(2.) *Problems Arising from the Introduction Into the Tropics of New Diseases.* As illustrative of this ever-imminent danger, I again quote from my address above cited: "In our country, measles is regarded as a more or less trivial incident of childhood, but when it was introduced into the Fiji Islands the mortality was terrible, in some districts half the population dying."

Often, when a disease is introduced into a new country, it finds an exceptionally favorable soil for its propagation.

Among races where it has existed for ages, the process of natural selection has resulted in a sort of racial immunity which is entirely lacking in these new victims, who thus succumb by wholesale to its onslaught.

And it is not only the immediate excessive mortality which is to be taken into account when a new disease is introduced into a tropical country. A subsequent sad and prolonged racial deterior-

* *Vide* New Orleans Medical and Surgical Journal, August, 1910, p. 43.

ation may result from the establishment in any region of an alien disease, upon which truth the introduction of syphilis and tuberculosis in South Sea Islands is a pitiful commentary. The practice of scientific hygiene, in the beginning of tropical development, is the only remedy for such appalling contingencies.

(3.) *Problems Which Arise from Tropical Diseases Which May Gain a Foothold in Temperate Climates.* The history of cholera in Europe during the last three years, and the taste of the disease we have had in New York, is all fresh in our minds, showing us that eternal vigilance is the price of freedom from tropical scourges.

Leprosy is already a naturalized disease in the United States. Bubonic plague has already invaded California and England. and only prompt measures have held it in check. Amebic dysentery and pellagra are common enough in our daily practice to call for litle comment.

Hookworm, probably introduced with slaves from Africa, is abundant enough to be regarded as a humorous butt of the comic papers, and a sinister and pathetic joke on suffering humanity it is, if one but inquire into the fate of the thousands under its curse.

I said in an address in this city two years ago: "Just as measles in Fiji and malaria in Mauritius, finding new and susceptible soil, nearly decimated the inhabitants, so some still unknown tropical disease now slumbering in a corner of one of our island possessions could be imported to bewilder our sanitarians, upset our cherished commerce and decimate our ranks. I do not say this is a probability, but it is a possibility, and, as such, demands consideration from students of disease and from the public at large.

The solution of it all lies in the placing of all commercial and administrative schemes under the expert advice and control of sanitary authority, as has been so thoroughly and satisfactorily done in Panama.

III. Questions Arising from the Discovery and Perfecting of Methods of Combatting Disease.

There are many problems which might be discussed under this head, and valuable principles of control and conquest have been deduced from careful study and experiment along these lines.

Given a knowledge of the cause of a disease, and data regarding its rapidity and peculiarities of spread and geographical distribu-

tion, there remain to be worked out the easiest, cheapest and most efficient methods of coping with its ravages.

Most of the problems of interest in this connection may be grouped under three heads:

(1.) *Problems of Research.* It has already been pointed out that the first step in the control of a disease is an investigation of its cause and principal characteristics.

Such research can best be carried out by two methods, working hand in hand, namely, investigation of diseases and patients imported into or native to our country, and expeditions to tropical regions to clear up obscure points that can only be fully worked out under the actual conditions of tropical life.

The Tulane Department of Tropical Medicine is earnestly carrying on both these lines of activity. From our laboratories have been published, during the few months of our existence, a number of original investigations bearing on vexed questions of tropical medicine, and we have now in Central America a research expedition, in charge of Professor Bass, from whom we have within the last few days received the important news that the entire sporulation cycle of the human malaria parasite has been observed in artificial culture—an epoch-making feat which is of the utmost interest and importance, both to the scientific world and also to the practical sanitarian, as such an achievement may possibly be the stepping stone to the discovery of a more perfect cure and prophylaxis.

It is our hope that our Department of Tropical Medicine will be able to accomplish all that its friends expect in the solution of the important questions which are the inevitable heritage of New Orleans as the gateway to the American tropics.

(2.) *Problems of Education.* Second only to the need of elucidating the cause and means of preventing tropical disease is the need for special education of medical men who are to be stationed in the tropics.

If the statements which I have ventured in this paper are true, and they appear to me to be self-evident, there is no need for me to dwell upon the necessity for adequately equipped medical men, especially trained in the lines in which their duties will run, to take up the enormous task awaiting them.

It is little less than a cardinal sin to send a poorly-trained man to the tropics. The day has passed when anybody will do for a medical position in the tropics. We no longer send our failures and

those who cannot make good in the country. Not only are we preparing to send men of good scholarship from Tulane to Central and South America, but we are planning to send only those who have had special training for tropical practice.

I would like to point out here, to those who are interested in tropical exploitation, that a soundly-trained man, especially fitted by previous study to grasp the local problems he will meet, will cost you little more than a second or a third-rate man, with no special training at all.

And the trained man will save you many times his cost each year. He will keep your force off the sick-list, will keep those who are not sick in better physical condition, and therefore more efficient, and will render your ships, stations and plantations healthier, and thus enable you to get more out of your native laborers. In other words, he will increase your dividends. We are supplying several such men from our Department of Tropical Medicine this year, and we confidently expect them to accomplish such results as I have mentioned.

(3.) *Problems of Administration and Practical Efficiency.* Under this last head I would like to emphasize, first of all, the wisdom of placing both responsibility and authority, touching health matters, fully in the hands of medical men. The men should be carefully trained and chosen, and then trusted and obeyed in matters of sanitation and disease. No situation is more heart-breaking than a purely advisory position in health matters. I well remember a man who disregarded his medical officer's protests and opened a rubber plantation in the midst of a tse-tse fly belt. Three-fourths of his native laborers died of sleeping sickness, the rest ran away, and the owner went to London, where he afterwards also died of sleeping sickness.

Another question is that of expenses. Adequate outlay in this regard is a policy of wisdom and brings rich rewards in the end. A company operating in the tropics should be contented only with the best men, the best equipment and best maintenance for its sanitary work. I am not advocating this from any sentimental or humanitarian basis, but from a purely financial standpoint. In other words, it pays.

A slightly different aspect of this last question is also of importance. I refer to the need of allowing or requiring medical officers to take frequent supplementary work and training during

their furloughs to this country. It is not enough to secure good men and equip them well. They must not be allowed to vegetate and become antiquated in their tropical environment. Not only do they need occasionally to renew their laboratory and other technique, but they should be given opportunity to become acquainted with new discoveries and devices, which are constantly being added to our resources.

It is no part of the scope of this paper to discuss the details of the great questions I have laid before you. The principles involved are simply and easily grasped. Those who will follow me will add to the outline I have sketched.

I only wish to say, in closing, that only in the following of these scientific principles can New Orleans and the South protect themselves from danger and rise to their opportunities as the logical heirs of the vast advantages to be gained by an intelligent and far-sighted development of the tropical empires lying at our doors.

Prompt Notification with Applied Science the Only Defence Against Pestilence.*

The Logical Center of Tropical Medicine in the Western Hemisphere.

By JOSEPH HOLT, M. D.,

Ex-President of the Louisiana State Board of Health; Author of "Maritime Sanitation," New Orleans, La.

Gentlemen—For general discussion you have propounded the question, "What effect will the opening of the Panama Canal have on the health of New Orleans and of Louisiana?" I will bring this nearer home, by including it in the larger inquiry, "What effect will the opening of the port of New Orleans to the incoming shipping of the world have upon the health of this city and State?"

Here is a question involving the highest watermark of civilization to date; and how shall we reply, except in gathering together in synethetic unity the substance of these five papers just read, each a store of accumulated knowledge, supplemented by months and years of toil, and imminent and often fatal exposure in the laboratories and fields of tropical medicine, massing the whole content in practical application.

These papers, as presented to us, are of those intellectual achieve-

*Read before the Orleans Parish Medical Society, in the Assembly Hall of the Progressive Union, May 27, 1912.

ments, and often complexities, called pure science, and might live and die in the brains that conceived them, conferring no more benefit in our daily lives than the theoretical abstractions of astronomy. It is only when brought together and harmonized in directive action, called applied science, that it comes within the range of practical comprehension and usefulness. In obedience to universal law, moral and physical, called truth, all of the requirements of the human race, in every branch of spiritual and industrial necessity and in every defense against danger, are surely provided if diligently sought.

The knowledge of truth is science, competent to repel all invaders, for, through science, you shall know the truth, and the truth shall make you free. From bondage of ignorance and slavish fear the truth shall make us free.

In the feebleness of childhood the instinct is that of the partridge or the savage, to hide itself behind the protecting cover of deception and falsehood.

It is not wickedness nor degeneracy, but in childish ignorance and consequent fear, and in the dire necessity of protection, it is the only weapon that seems to offer. Precisely so it was, and is, in communities of men and women who, in proportion to their ignorance and associate superstition, can never outgrow their childish instinct of terror in the utter abandonment of helplessness before the destructive invasions of overwhelming forces in nature, occult, pitiless and implacable.

Such communities have not wholly emerged from childhood estate, and bear the relics of pagan savagery in their appeasing orgies and processional exhibitions of fetishes, and such like protective symbols, and the firing of cannon, burning of tar barrels and all of the old-time quarantine inflictions and legalized outrages that suffering humanity, in the climax of horrible disaster, has been additionally compelled to endure.

From these observations we state the rule that the behavior of a people, in the face of danger from natural causes, is the indubitable index of its civilization. Witness the demoniacal scenes in Italy, besides the destructive secrecy, such as the violent removal of cholera patients from the hospitals and threatening the lives of physicians and nurses, charging them with poisoning the water. Compare this with the calm determination and faith of New York City, when cholera was introduced from Hamburg, August 31,

1892, into the crowded slums, whose wretched humanity, in semi-darkness and grime, swarmed like vermin.

The disease had all the start necessary for an immediate pestilential spread, but the merchants and all other of the monied and intellectual forces of the city, instantly arose to the mighty occasion and concentrated upon the infected focus, and set in action all of the batteries of applied science, in recognition, instant reporting, isolation, disinfection, extending to even slight diarrhea as suspicious. On September 21 occurred the last case, and six days later there was no cholera in America.

A few hours of hiding and falsifying would have murdered science and have committed that population of millions, together with their industrial and monied billions, and the whole country, to a tremendous calamity impossible to calculate.

Not many months ago there was a repetition of cholera outbreak in the slums of New York, and again the resources of applied science checked and annihilated the invader, already within the threshold. In former times, such introductions meant the sweeping of the continent.

From the beginning of history man has been assailed by three forces in nature, chiefly destructive—fire, flood and pestilence. For the one, he has elaborated the enginery of the fire department with electrical appliances for instant notification; for the other, the engineering department has constructed the system of levees; and surely there is scarcely such a fool or depraved wretch as would detect a fire or a broken levee, however small the blaze or break, without vociferously summoning the respective departments of applied science.

Like either one of these, pestilence is simply a force in nature, subject to control by prompt recognition, notification, isolation, disinfection, and, already looming into efficiency, artificial immunization.

What fatuous insanity and swinish stupidity could devise the legal-compelling of a prompt report, and then, at the supreme moment of the first spark of pestilence, suppressing information, and covertly threatening physicians with public animosity if they dared to obey the law, in order to call out the department provided by science, as in the other cases?—a childhood or savage reversion, the invariable precursor of an epidemic.

Your port will remain opened, and the health of New Orleans

and of Louisiana protected, when every business man and other rational citizen shall create a public common-sense as public opinion, that will not tolerate faleshood about fires, flood or pestilence, but will compel a rising to the protecting level of New York and the Panama Canal zone.

This city, itself a pioneer, demonstrated the complete efficacy of this policy of rational protection in repeatedly destroying the first spark of pestilence, and boldly maintaining confidence at home and abroad, by notification, open and above board. From 1869 to 1879, eleven years, inclusive, yellow fever occurred here every year, with a total mortality of 5,096. During the seventeen years following, there were ten deaths, and yellow fever ships in quarantine every year, while people ceased to be afraid. Introduced six times, not in the shipping, and no spread.

Driven by frightful experience to a desperate measure, there was a period of five years' wise and firm enforcement of protracted quarantine, equivalent to exclusion of tropical shipping, during many months of the danger season. This was followed by twelve years of the port flung wide open to commerce, excepting a very brief detention in quarantine, when necessary, faithfully and speedily executed.

Knowing that the living entity of contagium of yellow fever is imported, and possibly or positively on shipboard, but not aware of the mosquito as its host, from kelson to cross-trees every mosquito, rat, roach and other biologic form was destroyed; anticipating in results the later findings of the mosquito theory, that informed with precision how it was done. But New Orleans had long since demonstrated her protection against this foreign invasion, and had already taught the world.

And now for verification by a control test in final proof. With unfaithfulness and the neglect of applied science, came yellow fever and widespread calamity, instantly and repeatedly. Let us remember this unscientific experiment—and the cost.

Under the Panama Canal management there will be no deception nor pretermission of applied science, but a guaranty, made absolute in our own quarantine defense through Federal administration.

As an incidental necessity of health protection in the conservation of the productive industries and commerce, the construction of the Panama Canal and the powerful interests developed under the management of the "tropical fruit trade" have compelled the

enlistment of exact knowledge imparted through technical training, in order to safeguard these vast interests in the territories of demand and supply against the transmission of infections and to protect the territories within themselves from the insidious ravages of the diseases of tropical and semi-tropical regions.

From the imperative necessity of such protection, and guided by all the evidence, including the foregoing historic recital, with many associated facts, these enormous monied and industrial interests, by common consent and the strongest material encouragement, have already selected New Orleans as clearly the logical center for a school of tropical medicine in the Western hemisphere.

Summer Diarrheas.*

By SOLON G. WILSON, M. D., New Orleans.

There is a great deal about summer diarrheas that we do not know, but our present knowledge, based upon a summary of facts, the result of bacteriological, bio-chemical findings, experience and successful practice, all of which have played their part in placing this disease in the rank of modern medicine.

In the beginning I want to say that I have no special claim for original findings, but I believe that I have reduced to a comprehensive form some points of importance, bearing upon a disease that robs us annually of tens of thousands of babies.

The resumé of facts here compiled are the findings of European and American physicians, bacteriologically due to the efforts of Shiga in Japan, Flexner and others in this country. These workers have shown that a group of closely related organisms exist in these conditions, and it is not at all improbable that the etiological factor is due to a multiplicity of these organisms, which in a way explains why we have not been able to get a serum that served satisfactorily.

Our increased knowledge of the digestive changes, food and food values, due to a great extent to the work of Von Noorden of Vienna, has contributed much in handling these cases. As diarrheas are due to multiple organisms, so are they due to multiple factors in producing the disease. It has been demonstrated that the bacilli are not entirely responsible for the disease, by the fact that the organism have been found in children that were not ill, but it was found that these children, though not sick, could serve as carriers and could communicate the disease to others.

The character of the food is signficant, in that it plays a part

* Read before the Orleans Parish Medical Society, June 10, 1912.

in doing damage to the epithelium and without this damage the organism remains inactive.

Heat plays an important role as the bacteria are inhibited in cold weather; and are made active in warm weather. This explains why the disease is prevalent in the summer months and in warm climates. Hence the explanation of the three factors—bacilli, food and heat.

Stools—The systematic study of infant stools, when properly interpreted, show what nature might need by what she refuses to do. Still better, information may be derived as to the digestion of fats and proteids and carbohydrates and as to the presence of blood, pus and bacteria. This organized information can not fail to be productive of results.

Symptoms—Instead of attempting to discuss the symptoms that are too well known to all of us, it might be more interesting to analyze the significfiance of some of the more important ones.

In an infectious diarrhea, the one clinical symptom that stands out most prominently is the dried out, dessicated appearance, giving sunken eyes, depressed fontanels, parched hands and feet, presenting the appearance of a washerwoman's hands, and flabby, loose cellular tissue, all indicating the loss of fluid.

Finkelstein, of Berlin, in his very creditable work, has shown that the true pathology in these cases, or the true cause of death, is due to the cells having lost the fluid, producing a fluid starvation.

The macroscopic question of stools is the only side I shall attempt in this paper, as volumes have been written upon the microscopic side, and it has not yet all been told.

The beginning greenish then mucous and then muco-purulent, tinged with blood, stools, with increasing frequency, are familiar to all of us. The clinical significance and outlook is also familiar to us. Associated with the above picture, you usually have the listless, profoundly toxic patient, indicating the rapid toxemia, accompanied with great weight loss.

The daily weighing in these conditions is as important as taking the daily temperature. The other side of the picture is of interest, denoting improvement, first the stools become less frequent and the color begins to become yellow, the child begins to notice, will laugh, cry aloud, the fontanels begin to fill out, the daily weight gain becomes apparent.

Infectiousness—It has been conclusively proven that this disease

is one of the most infectious of diseases. So much so that the nurses looking after diarrhea patients should not come in contact with other cases. The necessity for sterilizing the bed clothing and everything that comes in contact with the patient, can not be too rigidly enforced.

Before taking up the important question of treatment, the explanation should be given as to why some elements of food are objectionable and as to the advantages of certain foods. Orange juice, which has not any caloric value nor medicinal value, has been used as a routine measure; the objection is that it breaks up into hippuric acid, which is an extra tax on already taxed organs trying to peform vicarious functions.

Soup and soup extracts, aside from the value of the fluid and salt, break up into creatinin, which serves indeed as an irritant to the renal organs. Whites of egg or albumen water satisfy very little caloric needs, as it has been demonstrated that the white of an egg only furnishes ten calories.

Mothers' milk, in these conditions, has always seemed to serve well; the explanation of which is, in a way, hypothetical, viz: That the mothers' milk has in it an internal secretion which seems to have an anti-toxic effect, this explanation is a conclusion, on the same basis that nursing babies, altho subjected to infectious diseases, such as scarlet fever, diphtheria, etc., rarely develop the infection. Then, too, mothers' milk is one of the protective colloids amphoteric in reaction, and forms small floculent curds.

Butter milk has seemed to meet the question of artificially feeding these patients more nearly than anything I have used. It, too, is a protective colloid. It resists the hydrochloric acid and rennet and favors small curds and passes from the stomach in a liquid form. It is fat free, and the fats seem to have a very bad effect on diarrhea patients. The lactic acid seems to be destructive to the gas bacilli, and these bacilli are nearly always present in in large numbers.

The most important feature in the entire treatment, shown by the pathology, is the keeping up of the water loss. By small, frequent doses by mouth, rectum and subcutaneously, it has been proven that sodium chloride has the property of making the tissues hold the water, by facilitating endosmosis.

As a regular plan, water is given by mouth, in teaspoonful doses, in these patients, who are so weak that they are unable to drink the fluid from the bottle through the nipple.

Physiological salt solution may be given in the rectum, 6 to 8 ounces, twice or three times in 24 hours. In the more profoundly toxic cases, physiological salt solution can be given by hypodermoclysis. The amount given should depend upon the fluid loss, ascertained by daily weighing. Usually give from 4 to 8 ounces, or 100 to 200 c. c. normal salt solution in 24 hours. Besides the value the salt solution has for replacing fluid loss, it serves as a diluent of the toxins.

It often follows that, after injecting salt solution, there is a reaction in a rise of temperature, which is not due to the salt in the solution, but is due to the water, the salt solution being usually a stock solution and the contamination of the water seems to develop after standing. If fresh salt solutions are made each time, in my experience, this objection will be overcome.

The cereal gruels have the double advantage of furnishing some of the caloric needs and are absorbable and assist in furnishing additional water. They should be administered in small teaspoonful doses and frequently. It is found, too, that the cereal gruels when strained through a collander do not furnish any refuse.

Mechanical treatment in the form of irrigation of the colon occupies an important place, but indiscriminate and too frequent irrigation is bad practice.

After the disease will have advanced several days, it will continue in the form of frequent stools with tenesmus, etc., as it began. In this class I really believe frequent irrigation does harm to the bowel that is constantly at work trying to throw off the poisons. The other type after a few days seems to develop an intestinal stasis, which is likely the result of the toxins, in this form colonic irrigation is indicated; in other words, as long as the irrigation carries off a great deal of detritus or debris, it is doing good, and when the water returns unchanged, the irrigation certainly does not do good. In addition to irrigation in the last named type, where there is apparent stasis, abdominal massage seems to be the rational thing, when given gently.

The drug that has assisted in elimination or alimentary purgation that has been most satisfactory in my hands has been castor oil in daily doses, from one to four drachms. It has the merit of producing sweeping, cleansing stools, without the harmful irritating effect of calomel. Abt has shown that calomel, even in normal

children, produces blood stools determined microscopically.

The one drug most universally used is bismuth subnitrate, which has resulted from empiricism and successful practice.

I have found, however that bismuth did good in some cases, and in some I have thought it acted adversely. It was believed a long time that bismuth formed a protective coating and in this way, the merits of it was explained.

In watching the action of bismuth upon stools, observations were made on two kinds of stools. 1. In some of the cases the stools were black. 2. The stools presented unchanged bismuth, accompanied by greenish mucus. In this class the bismuth seemed to act as a direct irritant, while in the other, or first type, whenever the stool was blackened, as prognostic agent, you were safe to consider your patient improved.

Kerley called attention, a few years ago, to a class of subjects that did not give the black stools and recommended the addition of precipitated sulphur, which produced or converted the bismuth into bismuth sulphid.

The most plausible explanation of why the bismuth is converted into a sulphid sometimes and not at others is that, as a rule, the diarrhea patients are cut off of nitrogeneous diet, which furnishes the sulphur in the process of digestion.

The amount of bismuth administered should be large and from 10 to 30 grain doses at frequent intervals. The sulphur should be given in one grain doses added to each teaspoonful of the bismuth mixture, never combining the sulphur except just before administering the dose. This plan I have carried out for the past six years, and I commend it.

Presentation of a Case of Chronic Laryngeal Stenosis; Treatment by Specially Devised Intubation Tubes.*

By HOMER DUPUY, M. D., New Orleans.

Chronic laryngeal stenosis is one of the Rubicons of laryngology. The mastery of a case within a few months is sufficiently unusual to justify this presentation. Moreover, the use of special tubes presents features of the greatest practical interest.

Katherine Spenser, 2½ years of age, was successfully intubated by Dr. Perrault, of Jennings, La., on March 5, 1912. The micro-

* Read before the Orleans Parish Medical Society, June 10, 1912.

scope evidenced the fact that the condition causing the stenosis was of diphtheritic origin. Serum therapy begun on March 5; within a week the patient received a total dosage of 45,000 units of antitoxin. During a period of 20 days, two removals of the intubation tube required two reintubations. The gradual return of the stenosis despite the general improvement, necessitated reinsertions of the tube at periods varying from a few hours to several days. By March 26, 1912, the original disease had undoubtedly spent its force, and yet the laryngeal obstruction continued. She was then brought to me. As she presented marked dyspnea, the intubation tube was evidently not fulfilling its object. This dyspnea had only been present 24 hours. Inspection showed the tube displaced below the vocal chords. To reach it a tracheotomy was practiced and the tube removed by pushing it from the tracheal opening through the larynx. The tracheal wound was closed and a Dupuy & De Poorter special intubation tube inserted. This tube was never coughed up, and during the whole period of intubation the child led a perfectly normal life at the Hotel Dieu. The removal of the tube on April 3, 1912, was followed by perfect respiration for five days, when the gradual return of the stenosis made it imperative to reintubate on the eighth day. For 51 days she was subjected, at the hands of Dr. De Poorter and myself, to four extubations and to four reintubations. At first, removal of the tube was followed by normal breathing, the hoarseness only persisting. In two instances, on about the eighth day, noisy breathing would set in, with a progressive return of the stenosis during 36 to 48 hours, which brought the respiratory embarrassment to such an extreme that reintubation became necessary and always with the happiest results. This period of perfect breathing without the tube lengthened itself out to 18 days, when an acute bronchitis seemed to excite a similar progressive recurrence of the obstruction which required reintubation. On May 27, 1912, extubation. Since then to this day, nearly one month, normal breathing has generally obtained, with the exception of a little harsh breathing incident to attacks of acute bronchitis. On May 24, fibrolysim injections (Merck's) were begun. Twelve ampoules of 2 cubic c. each were given within a period of about ten days. We have every reason to hope that this obstruction is mastered.

General Remarks—In the paper read before the A. M. A., at its 1912 meeting, the author went into lengthy details to prove that

chronic stenosis of the larynx in children was usually due to what is aptly termed hypertrophic laryngitis. This may be a sequence of laryngeal diptheria. Other factors may cause it. The specific feature in this affection is that the hyperplastic formations are usually focused in the subglottic area, or in the upper tracheal region. We have ample evidence to show that the lumen of these parts becomes the constricted area. For example, in the case just presented, the intubation tube readily passed the glottis, but resistance was invariably encountered lower down in the subglottic area. It was to prevent those dangerous auto-extubations which are so frequent in this very condition and also to render tracheotomy unnecessary, that Dr. De Poorter and myself, some five years ago, began experimenting with tubes of our own device. They are symmetrically and proportionately larger in all diameters. But the chief feature of the tube is that we have modified it by the placing of a *low retaining swell.* This engages so firmly at the point of subglottic constriction that if a proper sized tube is used the chances of auto-extubation are greatly reduced. Thus far, in such affections, they have not occurred in our practice. This special tube, which we have baptized as our "fat tube," while in position, effects continuous dilatation in the constricted area.

The Dupuy and De Poorter tube, with a low retaining swell.

This may not be the final word, but the special tube, we believe, marks an advance in our attempt to master this most pathetic affection. Tracheotomy does not meet the indications. It only complicates matters, for if the canula is worn for a long time, it initiates cicatricial changes and deformities in the upper trachea. Traumatism may play a part during the intubation, but when we remember that subglottic laryngitis, with chronic stenosis as a result existed, and was duly recognized in preintubation days, there is little justification for placing the blame on this procedure.

The clinical picture of the case just presented, climaxed by the progressive return of the stenosis, at one time 18 days after intubation, argues against the probability of any form of postdiphtheritic

or pressure laryngeal paralysis. Whether or not the fibro-lysin with its supposed resolvent action or fibrous tissue had any influence in this particular instance cannot be proven.

Dr. Perrault, and his associates in the case, deserve the greatest credit for the successful fight instituted by them at the beginning. To have diagnosed that there was something unusual in the character of the stenosis showed clinical acumen and good judgment.

Society Proceedings.

The American Society of Tropical Medicine.

SECRETARY'S REPORT.

By JOHN M. SWAN, Rochester, N. Y.

The past year has been a most valuable one in the history of The American Society of Tropical Medicine. The very successful meeting, which was held in New Orleans for two days in May, 1911, will long be an epoch in the annals of the Society. The Society's program was notable, and the social features provided by the members of the Society resident in New Orleans and the members of the medical profession in New Orleans will long be a source of pleasant recollection to those members who attended the meeting.

Early in 1912 the Secretary was notified that the Society had been admitted to affiliation with the Congress of American Physicians and Surgeons, and the Council elected Dr. James M. Anders, one of our former presidents, a member of the executive committee of the Congress. As a consequence of this affiliation, the Society will meet in Washington in 1912, during the meeting of the Congress.

The committee appointed by the President to report upon the available measures for the prophylaxis of the plague in the United States has not been able to furnish a report at this meeting, as was originally intended. It is hoped that such a report will be forthcoming at the next meeting.

The sixth volume of the transactions will soon be in the hands of the members, and the fifth volume was issued just after the last

annual meeting. The coming volume will be smaller than those formerly issued, on account of the fact that some of the papers read at New Orleans have not yet been published. This is a subject that your Secretary would like to call your attention to in order to urge you to furnish your manuscript for publication at the meeting at which it is read.

It is by the distribution of our bound transactions that the activities of the Society can be made known to similar societies and other learned bodies in various parts of the world. The result of American investigations in this field are second in importance to those of no other nationality, and it is through the publications of this body that they can best be made public.

The Society has been invited to participate in the Fifteenth International Congress on Hygiene and Demography, which will be held in Washington in September.

Membership—At the last annual meeting the membership of the Society was as follows: Active, 120; corresponding, 17; honorary, 40. At the last annual meeting 3 active members were elected. During the year, two active members, Dr. Francis X. Dorcum and Dr. F. F. Russell, resigned. Two honorary members, Dr. Walter Wyman and Dr. Stanford E. Chaillé, and one active member, Dr. John H. Musser, died. One honorary member has resigned and applied for active membership.

The membership of the Society on June 4, 1912, is as follows: Active, 120; corresponding, 17; honorary, 37. Total, 174.

The Council at its meeting on June 1 appointed the following delegates to the Fifteenth International Congress of Hygiene and Demography; Dr. George Dock, St. Louis; Dr. F. Creighton Wellman, New Orleans; Dr. Henry J. Nichols, Washington.

The Council of the Society met in the Hotel Rudolf, Atlantic City, on Saturday night, June 1. It recommends the following candidates for officers of the Society for the coming year: President, Dr. Edward R. Stitt, Washington; Vice Presidents, Dr. Richard P. Strong, Manila, Dr. F. Creighton Wellman, New Orleans; Secretary, Dr. John M. Swan, Rochester; Treasurer, Dr. C. Lincoln Forbush, Philadelphia; Assistant Secretary, Dr. Allen J. Smith, Philadelphia; Councillors (to serve two years), Dr. Henry J. Nichols, Washington; Dr. Roger S. Morris, St. Louis; Dr. Seale Harris, Mobile; Member of Committee of Arrangements of Congress of

American Physicians and Surgeons, Dr. William S. Thayer, Baltimore.

The Council recommends the election of the following candidates for active membership: Dr. A. Parker Hitchens, Glenolden, Pa., Dr. G. C. Crandall, St. Louis; Dr. W. E. Deeks, Ancon; Dr. William H. Bell, Cristobal; Dr. A. H. Zeiler, Cristobal; Dr. Victor G. Heiser, Manila; Dr. John T. Halsey, New Orleans; Dr. James S. McLester, Birmingham; Dr. William Krauss, Memphis; Dr. Graham E. Henson, Crescent City, Fla.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D. ISADORE DYER, M. D.

The Plague Situation.

For several years the JOURNAL has emphasized the importance of watching the progress of the plague pandemic and its movement in the direction of the United States. The experience in San Francisco and along the California Coast has been an incident in that progress, which needs notice. The officials in the service of sanitation in the Canal Zone have been guarding against plague ever since they took charge, and so far as the incidence of the disease in the Canal Zone is concerned, this has been reduced to nil.

We are facing a problem which has menaced the whole sea coast on all sides of this country, and it must be met with every precaution which can be brought into service.

With the announcement of the plague case in Havana, the local representative of the Federal Government, Dr. J. H. White, with his usual regard for obligation in such times, promptly began operations in New Orleans to inspect and properly quarantine the shipping from infected ports, to organize the local health forces so as to examine rats along the water front and to further plans for the eradication of rats and to provide measures of prevention.

The Orleans Parish Medical Society appointed a committee of eleven with the power to act in formulating plans of conference, education, etc., and the Progressive Union, through its Public Health Committee, offered coöperation.

Meantime, the State and City Boards of Health have begun educational measures, the State Board particularly having issued a bulletin of information on the rat and its relation to the public health.

The timely statement from Dr. J. H. White in the public press regarding rat infection with plague and its relation to human plague is wise enough to be noted. The statement was made that often rat plague may exist without infection of the human subject

and that rat plague may last for years before human plague appears. More than this, the fact was emphasized that cleanliness in person and in the premises about a household is the strongest safeguard against plague.

The local organized forces have already began the system of rat investigation so successfully employed by Heiser in Manila, namely in investigating rats in definite surveys and trying to locate any infected area, with the intent of restricting that area and of destroying all rats in it. Heiser by this means not only rid Manila of human plague, but also eliminated rat plague.

It has been generally acknowledged that the complete destruction of rats is impossible and no means as yet have been devised to destroy rats. This does not discount the need of destroying all the rats possible in any territory, and the movement should be general over this country to war on rats.

The large returns in rat extermination at the various rat killings in Texas and other towns show the feasibility of concerted action in this regard and perhaps no better advisor in this can be found than the family physicians. The danger in rat killing with the possibility of plague infected rats, however, lies in the fleas which infest the rats, so when the rat killing begins, it ought not to be forgotten that a large amount of crude coil oil should be on hand to be used for dipping the rats, in order to kill the fleas. The practise of pouring crude coal oil about the premises as a dead line for rat fleas is also recommended by some authorities, and this advice may be followed as precautionary when the rat killing begins.

We are not writing in any way as alarmists, but the public needs to be educated, and timely advice may be of some service to our readers who may make the opportunity to spread the gospel of prevention in season.

Medical Education in Europe.

The Carnegie Foundation has once more added to the obligation of the medical profession in the recent Bulletin Number Six, just issued, dealing with Medical Education in Great Britain, Germany and France. A careful survey of the status of physicians in these countries has been made by Mr. Abraham Flexner, who also pro-

duced the report for the Foundation on conditions in medical education in this country.

The conclusions which may be drawn from the present report are chiefly that medical education in the countries studied has been a matter of evolution, fairly advanced in Germany, but far from complete in Great Britain, while in France the process is yet working.

The fact that medical education in Germany is systematic from the subsidiary schools up to the concluding courses for the medical degree seems to appeal to the writer of the report as approximating the ideal, while the irregular methods of individualizing the student and letting the fittest survive in uniform lots in Great Britain is condemned as unreliable and undesirable.

Altogether, the evidence points to the fact that the scientific spirit of the Germans is explained by the long training to that end and the uniformity of such spirit is natural.

Meantime, the medical profession in Germany would seem less popular as a calling than in other countries if the relation of physicians to the population is considered; the proportion is nearly as 3 to 1 in the United States, or 1 physician to 1912 people in Germany, with 1 to 600 in the United States.

We can rest contented in this country, if within little more than a hundred years medical education has reached its present standards. Our best schools compare favorably with the best in Europe, and our worst schools are rapidly reaching the class where they are not to be counted at all.

If we can interest the State in the problems of medical education so as to make the institution in each State responsible in the highest degree for the education of students, then a standard of uniform ideas may obtain. Such regulation, however, implies the material support of the State in such a manner that the conditions of education may be fully satisfied. The endowment of medical schools is rare and such philantrophy appeals to few wealthy enough to satisfy the needs. No class of citizens, however, touch more vitally the public interests as do the practitioners of medicine in most of its purviews. It may be reasonable, even if Utopian at this time, to look forward to that time when the State may justify the right to regulate such a calling and to demand so multifarious a service by so supplying the means that only the best of education may obtain.

Abstracts, Extracts and Miscellany.

Department of Therapeutics and Pharmacology.

In Charge of Dr. J. A. Storck and Dr. J. T. Halsey, New Orleans.

Pernicious Anemia.—Hunter's article is a postgraduate lecture, based on thirty-five personal cases and much experimental research. Although no effectual treatment is known, he says, yet a number of empirical measures have been proved useful, and, strictly applied, occasionally recoveries have been observed under them. Chief among them is bed rest, but the patients often rebel against this, as they feel well. He advises keeping the patients in bed until the blood shows a marked change for the better. Repose in the open air may advantageously alternate with bed rest. Light massage might be useful. Thorough examination for possible intestinal parasites is the first measure, and it is necessary to investigate the stomach functioning to remedy the individual deficiencies.

In regard to diet, stimulation of the appetite is of predominant importance; fruit juices and lemonade should be freely allowed. With simple gastric achylia, lavage of the fasting stomach in the morning with physiologic salt solution often proves useful. The food should be extremely nourishing and digestible, and nutrient enemas sometimes are valuable to supplement the ordinary food. Hurter is inclined to regard transfusion of blood as a valuable adjuvant; he does not wait too long, but makes the transfusion as soon as the blood picture ceases to show evidences of regeneration. He injects 200 or 250 c. c. of blood, and states that symptoms of anaphylaxis have never been observed. Unless sure of one's technic and assistance, the blood had better be defibrinated, but the natural blood should be preferred. He follows the Moritz method of transfusion, using a 100 c. c. syringe. He adds that, in two of his thirty-five cases, dyspnea followed the transfusion. In one case it suggested pulmonary embolism at first, but it rapidly subsided. In the second case the patient died two days later, and peculiar foci were found in the lungs; they were not typical of embolism, but suggested intravascular coagulation. No by-effects were ever noted with defibrinated blood. He has observed transient improvement

in the blood picture under administration of bone-marrow, and, as we need all the leverage power possible to aid in starting the regeneration of the blood, he advises using this organotherapy. He gives, generally, 30 or 40 gm. of the fresh bone-marrow from calves, generally in tablets made with 90 parts marrow, 30 parts port wine, 30 parts glycerin and 20 parts gelatin, mixing the marrow with the wine in one hot mortar, and the glycerin and gelatin in another, and then combining. Barr says that such tablets will keep for months. Hurter concludes with a reference to glycerin, stating that he has a vague impression that some benefit was apparent from glycerin given in large doses during the day—30 gm. in lemon juice, 20 gm. in capsules and 30 gm. by the rectum.—*Medizinische Klinik,* Berlin. J. A. S.

Arteriosclerosis of the Intestine.—Lagane discusses the syndrome liable to be induced by sclerotic degeneration of the walls of the arteries or arterioles in the mesentery or bowel. The attacks resemble angina pectoris in many of their features, especially the intensely painful cramps accompanying the transient paralysis of the segment of the bowel involved and consecutive meteorism. During the attacks the abdominal aorta may be so sensitive that even the weight of the clothing is unbearable. The pain seems to be the result of some physical exertion or emotion, which has induced a sudden modification in the circulation through the sclerotic region—an abdominal angina. Differentiation is difficult, unless manifestations of arteriosclerosis elsewhere give the clue. When the arterioles are chiefly involved, the circulation is more permanently distributed, and edema, interstitial hemorrhage, and even ulceration, may occur. Without involvement of the arterioles, conditions generally soon right themselves clinically. The syndrome has been called by various writers abdominal apoplexy, intra-abdominal intermittent claudication, intestinal miopragia, and intermittent ischemic dysperistalsis. The intestinal crisis may coincide or alternate with similar disturbances in the stomach from similar arteriosclerotic lesions in the vessels of the nerves. A retrospective diagnosis may be possible from the benefit of medication with nitrites or diuretics in the acute or chronic phases. Some have reported benefit and clearing up of the diagnosis under tincture of strophanthus alone or associated with theobromin. The condition is very liable to be mistaken for mucomembranous en-

terocolitis, neuro-arthritic diarrhea, the diarrhea of uremia or appendicitis or obstruction of the intestines. Mesenteric atheroma alone induces spasm of the intestine by irritation of the nerves or by ischemia of the intestine, with resulting thrombosis. Involvement alone of the arteries in the wall of the bowel induces limited apoplexy or ulceration, while the two forms combined lead to infraction of the intestine and, in a later stage, to local gangrene.—*Presse Médicale,* Paris. J. A. S.

Morphin and the Stomach.—The frequency with which morphin is prescribed in cases of acute gastric disturbances makes it desirable that we should clearly understand both the effect of such medication on symptoms and the mechanism by which it produces these effects. Formerly it was incorrectly taught that morphin decreased or stopped the gastric secretion, and quieted or depressed the irritability of the vomiting centers, with a later exciting effect on these centers. In later years it has been definitely established by observations on human patients, as well as on laboratory animals, that morphin usually stimulates the secretion of gastric juice and causes a spasm of the pyloric sphincter, which may persist for a number of hours. It is probable that this hypersecretion and spasm are chiefly responsible for the nausea and vomiting, which not infrequently are late and undesirable effects of morphin or other opium drugs. As an example of harmful results of the administration of opium, the writer would instance the effect of morphin given during the period following an anesthetic. The anesthetic, especially ether, as we all know, is very apt to cause a considerable degree of nausea and vomiting. Further, it seems probable that long-continued anesthesia depresses the tone of the gastric muscle fibres. With a spasm at the pylorus, there is no other outlet for the mucus present in the stomach as a result of the anesthesia, and the acid secretion caused by the morphin, except through the cardia. It is clear, therefore, that, although we all must admit the immediate quieting effects on vomiting which morphin produces, we also should admit that the morphin may, as explained above, act in such fashion as to prolong the period during which the nausea and vomiting may occur. As a result of their clinical observations, many surgeons either deprecate or condemn the use of morphin for the control of post-anesthetic vomiting, and it can be seen that

their practical deductions are in accord with our present knowledge of the action of this drug. Atropin tends to exert a contrary effect on the spasm of the sphincter and on the secretory activities of the stomach. Here, we see a theoretical explanation of the value of combining atropin with morphin, as is so often done. As the writer has observed, this combination is usually recommended for the reason that atropin will counteract any respiratory depression which may be caused by the morphin, but there would also appear to be an advantage in this antagonism of their actions in the stomach. It looks as if it might be worth while to regularly use atropin with morphin when it is to be given to check nausea and vomiting, and not to rely, as is so often done, simply on morphin by itself.

J. T. H.

Vaccination.—Schamberg and Kolmer *(Lancet,* November 18, 1911) recommend painting the point of inoculation after forty-eight hours with a 4 per cent solution of picric acid in alcohol, stating that this in no way interferes with the success of the vaccination, but markedly lessens the local reaction and the danger of secondary infection. According to some experiments which they conducted, this solution is four times as efficient as carbolic acid.

J. T. H.

Diagnostic Importance of Hemoptysis.—The conclusions drawn by Bartlett, in his study of hemoptysis, are as follows: Bleeding from the upper air passages must be ruled out by careful inspection and history. It may occur in certain constitutional or blood diseases as merely another manifestation of the general tendency to bleed. Hemoptysis frequently occurs in broken compensation in heart disease, and may occur in mitral senosis as the only symptom of failing compensation. In such cases, tuberculosis is frequently suspected; it is, however, rarely found. Ninety per cent of all hemoptysis are due to pulmonary tuberculosis. As a rule, definite signs and symptoms are present. Not uncommonly, however, signs and symptoms do not develop for months, or even years. Hemoptysis may occur in any ulcerating or eroding pulmonary disease. It should, therefore, be expected in abscess, gangrene, bronchiectasis or pulmonary cirrhosis. In such cases, careful study of the signs and symptoms and frequent examinations of the sputum will usually suffice to rule out tuberculosis. Hemoptysis

in pneumonia, bronchitis, asthma, or following trauma, should lead to the suspicion of an underlying tuberculous process. It is very doubtful if vicarious menstruation or hysteria can produce hemoptysis in normal lungs. Hemoptysis occurring without warning in young and healthy adults, and passing off without the development of further signs or symptoms or tuberculosis, is probably of tuberculous origin, and should be so treated. Broncho-pulmonary hemorrhage, without definite symptoms or signs of cardiac or ulcerative pulmonary disease, is due in nearly every instance to tuberculous infection, which is merely another way of saying that hemoptysis should be considered as due to pulmonary tuberculosis, unless proved to be due to some other cause.—*Boston Medical and Surgical Journal.* J. A. S.

Soap in Cholelithiasis.—Mosse emphasizes the two facts that in certain cases of gall-stones the knife is the only effective means of cure, and that in certain other cases a cure occurs without any treatment. Besides these, however, there is a group of cases in which the gall-stone trouble can be cured by stimulating the secretion of bile, and for this he thinks nothing surpasses a mixture of 10 or 15 gm. of medicinal soap with mucilage of acacia q. s., to make sixty pills; three pills daily. The pills can be supplemnted by rectal injections of oil. This treatment is to be commenced on subsidence of the acute attack; during this, belladonna or atropin may be required. This soap treatment was introduced by Senator, and some experiments reported this year from Pawlaw's clinic confirm, Mosse says, this cholagogue action of soap.—*Therapie der Gegenwart,* Berlin. J. A. S.

Hormonal Not Without Danger.—Kretschmer *(Muench. Med. Woch.,* No. 9, 1912, p. 474) and Dittler and Mohr *(ibid,* No. 46, 1911, p. 2427) have both reported cases where the intravenous injections of hormonal have been followed by most alarming collapse. In view of the wide advertising and the many communications which have recently appeared, praising this remedy most highly and unreservedly, it seems worth while to call our readers' attention to the possibility of such unfortunate results. At the same time, there is evidence from various and highly-esteemed

authorities that most beneficial and, at times, apparently life-saving results, have followed these injections. J. T. H.

Thread Worms and Appendicitis.—Rheindorf *(Berl. klin., Woch.,* Nos. 10 and 11, 1912) calls attention to the frequency with which these ordinarily neglected parasites have been found in the appendix at the time of operation, and under circumstances which force the conclusion that they were the major or exciting cause of the appendicitis. Still *(Brit. Med. Jour.,* 1899) found these worms in the appendix at autopsy in twenty-five out of thirty-eight cases, harboring these parasites. In six of these cases the appendix appeared to be their only habitat. In view of the fact that we, as a profession, are recognizing the frequency of appendicitis in childhood, and have long known of the extreme frequency with which children are the hosts of thread worms, it is desirable that we pay some attention to this connection between this and other parasites and affections of the appendix.

As is well known, it is not always easy to get rid of this particular variety of worm. Treatment by enemata alone often is unsuccessful, for, contrary to the general belief, the normal habitat is not the lower portion of the large bowel, but also the cecum, and even the small intestine. It is, therefore, necessary to use remedies which will reach the worms higher up. The best of these is santonin combined with calomel—one grain of calomel three times a day combined with half a grain of santonin to each dose, is about right for a child of three or four. In this connection, a quotation from Forcheimer's book on treatment is not amiss: "Whoever, like myself, has seen a fatal case of santonin poisoning following the administration of this drug to a patient who had no worms, will wish to satisfy himself positively of their presence before administering santonin." The editor has also observed a most serious case of santonin poisoning in a child without worms, but where the diagnosis was made on those classic but misleading symptoms of itching of the nose and anus. Inspection of the stools with the eye will often disclose the worms, but examination of the feces with a low power of the microscope will show the eggs in all cases where any number of seat-worms are present above or below in the intestine.

In connection with the treatment, the ease with which children reinfect themselves by carrying the ova or larvæ on their fingers to the mouth must not be forgotten. Rheindorf emphasizes the neces-

sity of preventing this, stating that the child must wear an absolutely tightly-closed drawers, especially during the night, until such time as the cure has been entirely successful. He, like others writing of the treatment, urges the extreme danger attendant on the use of carbolic acid, bichloride, or other similarly poisonous injections, although such solutions must be used to disinfect the anal region. In cases where santonin may act badly or prove inefficient, naphthalene in small doses, followed by purges, may be used.

J. T. H.

Tuberculin Reactions in Daytime and at Night.—Hollman has been comparing the findings in 188 patients given the tuberculin test at evening, 68 in the morning and 16 both morning and evening, a total of 626 tests, of which 464 were evening tests. The tabulated findings show that the reaction after the injection occurs more rapidly in the morning than at night. The difference with a mild reaction is over eight hours, with a moderate reaction over six hours, and with a powerful reaction nearly four hours later when the injection is made in the evening. The milder the reaction, the greater the difference. The difference was about the same when the same patient was injected morning or night. Hollman concludes, from the facts observed, that the action of the daylight is an important factor, saying that the importance of light as a catalytic factor is becoming recognized more and more in research on various biologic processes.—*Beiträge zur Klinik der Tuberkulose,* Wurzberg.

J. A. S.

Enuresis.—Firth *(Lancet,* December 9, 1911) reports over 50 per cent of marked improvement or cure in twenty-eight cases treated with thyroid extract in small dosage. He starts with from one-quarter to one-half grain daily. In the cases cured or improved, twelve of the sixteen were children with defective or arrested mental development. In the twelve not helped, ten were normal mentally.

J. T. H.

Acute Asthmatic Bronchitis in Small Children.—Goepert *(Berl. kl. Woch.,* April 22, 1912) reports favorable results in securing prompt relief from the distress by the use of relatively large doses of urethan. For a child under three months, ten grains by rectum, five grains by mouth; six months, child may take fifteen to twenty grains; a child in the second year, up to thirty grains.

In spite of the usual harmlessness of urethan, the editor would think it advisable to start with somewhat smaller dosage than is given above. J. T. H.

Serum Treatment of Typhoid.—Luedke *(Muenchn. Med. Woch.,* April 23, 1912) reports favorable results from the use of large doses of a serum obtained by immunizing animals injected with killed and living typhus bacilli. In the cases treated, between the sixth and the twelfth day there were ten out of fourteen in whom the disease was most unmistakably shortened and otherwise favorably modified. In the four others of this group, everything progressed favorably, but the results were not so certainly dependent on the treatment. Seven of the fifteen in whom this treatment was instituted, after the twelfth day showed objectively response by a disappearance of rise of temperature in the course of a few days. None of the others showed any bad results. In one case, starting in acutely and showing collapse, and other signs of a very severe intoxication, the intravenous injection entirely altered, for the better, the clinical picture, transforming a case with apparently the gravest prognosis into a relatively light one. He is convinced that these results are not coincidental, for other cases treated in the same clinic without injections gave no such good results. In order to get results, the treatment must be instituted early, and thirty to fifty cubic centimeters must be injected intramuscularly or intravenously, and this must be repeated once or twice in the next three or four days. J. T. H.

A Hypnotic for Subcutaneous Use.—Geissler *(Muenchn. Med. Woch.,* April 23, 1912) reports his experience with the newly-introduced luminal. In a dose from three to six grains, the sodium salt may be given without danger or harmful effects. The sodium salt is, however, so disagreeable to take that for oral administration the luminal itself, which is insoluble in water and practically tasteless, is to be preferred. The sodium salt can be dissolved in water in a 20 per cent solution, which may be boiled for two minutes, after which the solution may be kept for ten days without decomposition. The injections cause neither pain nor local reaction. The effects develop in from one-half to one and one-half hours. In its chemical composition it differs from veronal, diethylbarbituric acid only slightly (a phenyl radical having replaced an ethyl group), so that it is to be expected that it will in general resemble this better-

known hypnotic. As we all know, veronal has some bad qualities as well as many good ones. It is probable that when we get to know luminal better that it, too, will show some undesirable actions, but, if it is as good as veronal, the fact that it may be given subcutaneously will give it its own field of special usefulness.

J. T. H.

Hypophysis Extract and Labor.—Benthyn *(Ther d. Gegenw.,* April, 1912) adds his testimony to that already given by many others concerning the value of this substance as an exciter of uterine contractions. Its chief field of usefulness seems to be in the conditions under which quinin has been so much used, namely, during labor, when the birth of the child is delayed unduly on account of feeble muscular contractions. The dose necessary to accomplish this result will vary according to the different conditions under which it is used, and also with the preparation which is used. As far as the editor is able to judge, with the average preparation obtainable, the initial dose should be not more than one cubic centimeter (fifteen minims). This may be repeated at half-hour intervals if desired. It must be administered subcutaneously, or, better, intramuscularly, for it is very questionable if orally administered hypophysis produces this effect on the uterine muscle. J. T. H.

The Food Value of Cheese.—The Welsh have conferred some notable blessings upon the race, but none certainly greater than the rarebit—or is it rabbit? The English miners are glad to get the poor cheeses made in the United States. But the American citizen, blind to his privileges, eats 170 pounds of expensive meat per capita a year, besides fish and poultry in proportion—but only four pounds of cheese. The reasons for this are mere custom and lack of knowledge, in the opinion of the Department of Agriculture at Washington, as expressed in its circular on "The Digestibility of Cheese."

Great is the nutritional value of cheese; for this food contains, in unusually concentrated form, quite every essential to human sustenance. All kinds, even the much flavored and so-called Continental brands, are highly nutritious. Cheese has been ever held to be a stimulant to digestion when taken with the salad or at the end of the meal; bon vivants say of it that "cheese digests everything but

itself." Nevertheless, cheese has been demonstrated to be a very digestible food when taken, not as a condiment, but as the chief factor in a meal.

The Swiss eat largely of cheese, this food with bread forming the greater part of the dietary among this very healthy people. The sensible Germans consume large quantities of the cheap but highly flavored skim milk cheese, one popular variety of which is officially accredited "perhaps the most pungent odor of all the varieties of cheese made"—the sort which military men would salute as being of superior rank.

The French also have some very highly flavored cheeses, in which the bacteria do really seem to be working overtime. Concerning such cheese, etiquette seems to require that at table one should ask, not that it be passed this way, but that it should be directed this way. Nevertheless, these cheeses are wholesome. One may recall here the rejoinder to a gourmand, who, having consumed some Roquefort, observed that like Samson he had slain his thousands and his tens of thousands: "Yes, and with the same weapons."—*The American Practitioner.*

New Remedies—*Gomenol:* An etheric oil obtained from myrtacea virdiflora. It contains 60% cineol, some terpineol and traces of acetic acid, butyric acid and valerianic acid ester.

Employed in diseases of the respiratory organs, in whooping coughs, inflammation of the bladder, nerve pains, etc.

Drs. Leroux and Pasteau employed gomenol with success in tuberculosis of the lungs *(Aertzl. Rundsch.,* 1898, pp. 48, 49).

Vitose: Glycerin albuminate, a yellowish, odorless, neutral, transparent, basic salve, non-irritating and not becoming rancid. It may be blended with glycerine and water and yet retain its original consistency.

Dr. Quastler recommends it for use in massage in preference to vaselin, as it can be washed off immediately after the treatment. It also facilitates the massage and softens crusts on the skin. It has proved efficacious in eczema of the scalp or face, and seborrhea sicca was speedily cured by vitose.—*Aertzl. Zentralztg.,* 1906, p. 32.)

Hexamethylenamin: A Remedy for Common Colds. Miller *(Jour. Amer. Med. Assoc.)* has been led to prescribe hexamethyleamin for common colds by the reported excretion of this drug in

the saliva and by the middle ear and bronchial mucous membrane. He says that in most cases it acts promptly and efficiently.

The irritating watery secretion stops and the fever, aching, and general malaise diminish. The best results are obtained when the remedy is administered early. Larger doses of hexamethylenamin are required than when it is given as a genito-urinary antiseptic. Bladder irritation is the only ill effect of the drug, and in order to lessen this possibility large amounts of water must be taken.

J. A. S.

Miscellaneous

Treatment of Eclampsia.—E. Engelmann *(Wien. med. Klin.,* No. 51, 1911) reviews a series of 103 cases of eclampsia treated at his clinic during the last five and a half years. The total mortality of the mothers has been at the rate of 21 per cent, the system adopted being one of hastening delivery in all cases brought into the clinic during labor. In some obviously slight cases the membranes simply were ruptured, or in others dilatation was hastened by the use of a hydrostatic dilator; and this, coupled with isolation of the patient, absence of all sources of excitement, and the use of narcotics on Strongonoff's system, was completely successful. In any but obviously slight cases these measures may fail, and valuable time be lost. In a majority of the cases labor was terminated at once, and in those seen early, so that this could be done after the first or second attack, the mortality was only 10 per cent. The mortality in the clinic from eclampsia in the last ten years before the method of hastening delivery was adopted was 38 per cent. These figures speak clearly for the advantage of the system. Strongonoff's method of the use of morphin and chloral hydrate is to give a subcutaneous injection of 1 to 2 cg. (0.15 to 0.3 grain) of morphin, an hour later a rectal injection of 1.5 to 2.5 gram (22 to 37 grains), of chloral hydrate, two hours later another injection of morphin, and so on. Bleeding, combined with intravenous injections of Koch's salt solution, or, perhaps better, of Ringer's or Lock's solution, proved undoubtedly useful. The author prefers not to withdraw more than a few hundred cubic centimeters of blood, especially if delivery has not yet occurred. The customary cardiac stimulants were freely made use of. All operative measures,

and, with patients on Strongonoff's treatment, even simple examinations, were carried out with chloroform. A treatment tried by the author in fourteen cases, most of them severe ones, in which other methods had failed, was the injection of hirudin, a leech extract, which hinders the coagulation of the blood. The treatment is based upon the fact that the different symptoms of eclampsia are finally to be ascribed to the occurrence of multiple thromboses, while experiments show that the placental juice contains substances furthering the coagulation of the blood. The treatment was of effect in all but two out of fourteen cases, but further trial on a large scale is needed before a final opinion as to its value can be arrived at.—MILLER.

SYSTOLIC BLOOD-PRESSURE IN HEART DISEASE.—The observations recorded by Korke were made on patients suffering from (1) simple, uncomplicated valvular lesions of the heart due to acute rheumatic endocarditis; (2) valvular lesions due to other causes; and (3) other heart affections. No systemic complications were observed in cases of valvular lesions due to rheumatic endocarditis. There were no cyanosis, dyspnea, changes in the fundus oculi, febrile temperature and albuminuria, though traces of albumin were sometimes detected in a few cases. The observations were made on patients of both sexes, of different ages. They were allowed a mild out-door exercise, and generally they were keeping in good health. The apparatus used for the observations was a sphygmomanometer, a Martin's modification of Riva-Rocci. The systolic blood pressure was recorded by the armlet method during the recumbent posture of the patients. The observations were made daily, under similar circumstances, nearly an hour before dinner (at 1 p. m.), and in cases of doubt they were repeated two to three hours after 8 p. m. A record of pulse rate and number of respirations was kept during the observations, and sphygmographic tracings of the pulse were often made to note the effect of blood pressure on the pulse. In valvular lesions of the heart (with or without complications), due to rheumatic endocarditis and other causes, the blood pressure was found to be normal or above normal. In simple and uncomplicated valvular lesions of the heart, due to acute rheumatic endocarditis, the blood pressure was found always to be normal or above normal. In aortic incompetence, complicated with anginal attacks, the blood pressure was found to be subnormal during the interparoxysmal periods. As to the significance of high

blood pressure in simple and uncomplicated valvular lesions of the heart due to rheumatic endocarditis: The high blood pressure observed in some of the cases is, Korke believes, a physiologic compensation in those individuals, though it may be mistaken for a pathologic state. The blood pressure in cardiac muscle failure was normal, as well as above normal. In valvular lesions, complicated with chronic nephritis and arteriosclerosis, the significance of supernormal blood pressure requires no comment. It is distinctly pathologic.—*London Lancet.* J. A. S.

Salvarsan in the Treatment of Syphilitic Disease of the Heart and Blood Vessels.—Weintraud *(Ther. d. Gegenwart,* 1911, p. 442) has treated twenty-six cases of this sort with repeated doses of salvarsan given intravenously at short intervals repeated three or four times and in a dose of from 0.2 to 0.4 grammes. In none of these cases has he seen any bad results from the treatment. From his description of his cases and the improvement which followed this treatment, he is justified in his contention that such cases should be treated along these lines. He emphasizes the fact that in addition to this specific treatment such cases also should be treated by the accepted methods of diet, rest or exercise, the cardiac drugs and so forth. He believes that salvarsan treatment has many advantages over the usual treatment with mercury and iodides in this class of patients, but does not deny that one can often secure equally good results with the latter method. J. T. H.

Atophan for Gout.—In the recent literature are many reports of the favorable action of this drug in the treatment of gout. Deutsch *(Munch. med. Woch.,* Dec. 12th, 1911), as a result of the careful observation and close study of a large number of gouty cases, reaches the conclusion that atophan is the best drug we at present have in acute attacks of gout. He uses it in dosage from 40 to 60 grains, and states that as a rule there are no undesirable side actions except occasional digestive disturbances. Small amounts of soda given at the same time with atophan usually prevent these symptoms. In chronic gout the results are not so satisfactory. J. T. H.

The Effect of Atropin on the Pulse During the Administration of Digitalis.—Selberberg (Proc. Roy. Soc. Med., Lond., 1911, iv. 192) discusses the effect of atropin upon pulse rate in cases under treatment by digitalis. It is not yet definitely

known how digitalis slows the heart, but it acts best on mitral cases of rheumatic origin that have developed auricular fibrilation and arhythmia, while the senile type of cardiac degeneration, those with a regular rythm and the tachycardia of fever do not respond so well. Lewis considers it due to a partial block, and that cases with a prolonged A-C interval, that is, with a delay in conductivity, will become slower on digitalis. But clinically, the cases with rapid, irregular action, that is, with a short conduction time, become slower. Cushing thinks that digitalis increases inhibitory action of the vagus and prevents many impulses reaching the ventricle. Is the action mainly vagal, or are the conducting fibers of the auriculo-ventricular bundle themselves, or is the heart muscle lowered in irritability due to improved nutrition? In the senile type there is loss of inhibitory power of the vagus, and so atropin has little effect; also the cardiac musculature is so degenerated that nutrition cannot improve it much. By action of atropin the effects of vagus inhibition could be removed, and so one of the possible factors would be cut out. The patient's pulse was studied at rest, under atropin alone, under digitalis, and under the drugs combined. It was found in the rheumatic cases with rapid heart that the rate was slowed by digitalis, and on administration of atropin, while the rate was increased, it in no case reached the original rate before drugs; if the effect had been due solely to vagal inhibition, it is fair to suppose that, following atropin, the old rate would have been reached. There are thus two competent actions of digitalis, one vagal and the other on cardiac tissue, and they vary in different conditions. In the cases of auricular fibrilation that give high increases of pulse-rate on the administration of atropin, digitalis works its best, for, following digitalis, atropin has almost no effect in raising the rate—that is, most of the effects of the digitalis are on the cardiac musculature. These cases, as a rule, do well, and may even resume work again. By the study of pulse-rates following atropin with and without digitalis, it is possible to find out whether digitalis is acting upon vagus or cardiac tissue.—J. A. S.

Medical News Items.

New Laws of Louisiana General Assembly of 1912.—The following are the principal medical laws passed by the Louisiana General Assembly at the session recently closed:

Act No. 16.—Amending certain sections of Act 49 of 1894 to regulate the practice of medicine, which increases the fees for examinations by the State Board of Medical Examiners.

Act No. 126.—Increasing the power of the State Board of Health relative to enforcement of the sanitary code and pure food laws.

Act No. 130.—To permit quarantine by parish or municipality without authority from State, city or parish board of health.

Act. No. 131.—To permit boards of health to sue without cost.

Act No. 161—Establishing a State Tuberculosis Commission, and appropriating $10,000 for the first tuberculosis sanitarium.

In addition to the above, the State Association of Trained Nurses succeeded in passing its bill providing for the examination and registration of nurses desiring to be termed registered nurses.

The Fourth Annual Meeting of the American Association of Clinical Research will be held in New York City on November 9, 1912. The sessions will be held from 9 a. m. to 1 p. m.; from 3 p. m. to 6 p. m., and from 8 p. m. to 10 p. m., open to the public. Notable contributions on the Negri bodies, on certain fluids for tubercle bacilli in the urine, on adjustment and function, on psychoanalysis and traumbedeutung, on a pandemic of malignant encapsulated throat coccus, on the single remedy of indicanuria and glycosuria, on disease conditions expressive of correct diagnosis, on biochemic problems, on the two most far-reaching discoveries in medicine, and others, are to be given.

Medical and Chirurgical Faculty of Maryland.—The one hundred and fourteenth annual meeting of this organization was held on April 23, 24 and 25, under the presidency of Dr. Hugh H. Young. Officers for the ensuing year were elected as follows: President, Dr. A. C. Harrison; vice-presidents, Dr. C. F. Davison, Dr. J. Staige Davis and Dr. E. B. Claybrook; secretary, Dr. John Ruhrah (re-elected); treasurer, Dr. Wm. S. Gardner.

New Hospital Planned.—The Federation of Russian-Polish Hebrews of America has prepared plans for the erection of a hospital, to be known as the Beth David Hospital, on the nothwest corner of Columbus avenue and One Hundred and Thirteenth street, New York. The hospital will be an eight-story building, and it is estimated to cost about $150,000. The Federation has already established a temporary dispensary at Lexington avenue and One Hundred and Fifteenth street, and this will be maintained until the new hospital is ready for occupancy.

The American Hospital Association will hold its fourteenth annual meeting in the Hotel Ponchartrain, Detroit, Mich., on Tuesday, Wednesday, Thursday and Friday, September 24, 25, 26, 27, 1912.

The American Association for Study and Prevention of Infant Mortality will hold its annual meeting in Cleveland, Ohio, October 2-5. The program will include sessions arranged by chairmen of standing or special committees, and popular meetings, which will be addressed by distinguished specialists from this country and from abroad.

The National Society of Anesthetics was organized on June 6, at Atlantic City, Prof. Yandel Henderson, of Yale, chairman of the Commission on Anesthesia of the A. M. A., occupying the chair. Those assembled proceeded to organization, and elected the following officers for the year 1912-13: President, Jas. T. Gwathmey, of New York; vice-presidents, Chas. K. Teter, of Cleveland; F. H. McMoochan, of Cincinnati; Yandel Henderson, of New Haven; secretary, Wm. C. Woolsey, of Brooklyn; treasurer, Harold A. Sanders, of Brooklyn. The National Society of Anesthetics calls upon all those who are actively interested to join and assist in developing the subject of anesthesia.

International Congress of Comparative Pathology.—This Society meets in Paris, October 17 to 23, next.

Cornell Medical College.—The class of 1912, which was graduated on June 7, was the first to be sent forth since the college made the bachelor's degree a prerequisite to the M. D. degree, and numbred only eleven, of whom two were women. Of these, all but one has received a hospital appointment, four going to Bellevue

Hospital, two to the New York Hospital, two to the Rochester General Hospital, one to the Methodist Episcopal Hospital of Brooklyn, and one to the Erie County Hospital, Buffalo, N. Y.

Radium-Charged Baths.—More than 10,000 baths of radium-charged water have now been administered at the Austrian states mines at Joachimstahl, and an official report summarizes what has been learned of their curative value. The experiments with cancer have been too brief to justify any positive conclusions. But good effects have been noticed not merely in rheumatism and gout, but in spinal paralysis in children, hemorrhage of the brain, and certain cases of nervous exhaustion.

Cocain Habit Incurable.—An Indiana physician believes that there is no cure for the cocain habit, and states that it is estimated that in this country 150,000 ounces of the deadly drug are consumed annually, and, of this amount, 130,000 ounces are used illicitly.

Honorary Degrees Conferred.—At the eighty-first annual commencement of Wesleyan University, at Middletown, Conn., held on June 19, the degree of Doctor of Laws was conferred upon Dr. Amos J. Givens, proprietor of Givens Sanitarium for Nervous Diseases, at Stanford, Conn.

At the eighty-seventh annual commencement of Jefferson Medical College, held on June 3, the degree of Doctor of Science was conferred upon Dr. Wm. W. Keen, who is emeritus professor of surgery, and upon Dr. James W. Holland, emeritus professor of chemistry. The degree of Doctor of Laws was conferred upon Dr. J. Solis-Cohen, honorary professor of laryngology, while Dr. Joseph S. Neff received the degree of Doctor of Public Health.

The degree of Master of Arts was conferred upon Prof. C. W. Duval, of Tulane, by the University of Maryland at its commencement in June.

Gold Medal Award.—The trustees of the American Medicine Gold Medal Award announce that the medal for 1912 has been conferred upon Dr. Wm. C. Gorgas, Ancon, Panama, as the American physician who, in their judgment, has performed the most conspicuous and noteworthy service in the domain of medicine during the past year.

THE *Proctologist,* the only journal exclusively devoted to this department of medicine, announces that the September number will contain the papers and discussions of the American Proctologic Society for 1912.

PERSONALS.—Drs. J. T. Halsey, Irving Hardesty, Gustav Mann, John B. Elliott, Jr., are among those absent on summer vacation.

Dr. Robert A. Strong is spending the summer in Pass Christian, Miss.

Dr. Paul Reiss is in Europe.

Dr. Hermann B. Gessner announces that in future his practice will be limited to general surgery.

Dr. C. C. Bass and Dr. F. M. Johns returned from Panama on June 16.

MARRIED.—On June 25, 1912, Dr. Wm. Nelson Leavell, of Woodville, Miss., to Miss Ethel Youngblood, of Wesson, Miss.

On June 29, 1912, Mr. Alexander St. John Labry to Miss Mary Lyman Stone, both of this city.

DIED.—On June 18, 1912. Dr. Will L. Dickson, aged 57, one of the leading physicians of Shreveport, La.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Operative Obstetrics, Including the Surgery of the New-Born, by EDWARD P. DAVIS, M. D. W. B. Saunders & Co., Philadelphia and London, 1911.

This is a profusely illustrated volume of 483 pages dealing with the numerous problems of operative obstetrics. It shows primarily the trend of modern obstetrics towards the perfection of technic, the broadening of indications for operative interference, and the necessity of a modern obstetrician being, first, an experienced gynecologist.

The book deals briefly with the salient points in anatomy, asepsis, anesthesia, hemorrhage, and the general technic of obstetric surgery, and gives a very satisfactory bibliography at the end of each chapter.

It is conveniently divided into four parts, dealing with, first, the surgery

of pregnancy; second, the surgery of labor; third, the surgery of the puerperal period; and, fourth, the surgery of the new-born.

Part One is devoted to uterine displacement, the removal of uterine tumors during pregnacy, operations upon the tubes and ovaries, operations upon the pelvic floor and perineum during pregnancy, emptying of the uterus before viability, therapeutic abortion, emptying after viability, rapid and forcible dilatation of the womb, operation for appendicitis, cholecystotomy during pregnancy, operations upon the kidneys, operation for ectopic gestation.

The above enumeration of subjects, discussed in Part One, will give an idea of the scope of Dr. Davis' book. It is well arranged, concise, well illustrated, and reflects throughout the author's already well-known views on numerous obstetric subjects. It is also a book that will be welcomed by the general practitioner who finds the average text-book not sufficiently exhaustive upon operative technic and the various phases of dystocia.

The book will receive prompt recognition from both teachers and practitioners. MILLER.

A Synopsis of Surgery, by ERNEST W. HEY GROVES, of London. Wm. Wood & Co., New York.

The third edition of this book, already familiar to the profession, is an improvement on the previous editions, inasmuch that it has been carefully reviewed and is practically up to date. It presents systematically, though in a very concentrated form, the essential points in all surgical affections, and contains a wonderful amount of information. It can in no way take the place of a text-book, nor is it intended to. It can be useful only in the hands of those who are more or less familiar with surgery, and who use it simply to recall the essentials in diagnosis or treatment. Whereas many excellent suggestions found in text-books and journals are omitted, enough of the recognized procedures are mentioned to make it quite accurate. To teachers and students in review, and especially to such as are preparing for examinations, it would be most valuable. MARTIN.

Tumors of the Jaw, by CHAS. LOCKE SCUDDER, M. D. W. B. Saunders Company, Philadelphia and London.

This work is by Dr. Scudder, so well known to the medical profession through his work on Fractures. In this sudden and radical departure from the beaten path, the author has given the profession a valuable contribution by concenetrating in one volume information which it would take months to acquire.

The cuts and photographs selected are enough in themselves to make any surgeon take a solemn oath to get busy and recognize any new growth while in incipiency. Dr. Scudder emphasizes three important facts, which cannot be too forcefully impressed upon every surgeon: First, importance of early recognition of the growth and its pathology; second, the necessity for its removal as soon as recognized; and, third, complete and wide dissection—including lymphatics.

The case method of presenting these subjects is both instructive and certainly more impressive. From Dr. Scudder's observations, it is evident that these conditions are much more common in the South than in the North, owing to our negro population. It is a recognized fact that negroes are quite susceptible to all forms of tumors. MARTIN.

A Manual of Clinical Chemistry, Microscopy and Bacteriology, by Drs. Klopstock and Kowarsky. Rebman Company, New York, 1912.

This work is an authorized translation from the German and, as stated in the preface by the authors, is intended for practitioners of medicine who already have an elementary knowledge of the subjects treated. Any one reading the book will immediately be struck by the necessity for this statement. However, as a ready reference work, to have at one's elbow in the laboratory, the merits of the authors' compilation are evident.

The chapters contain a world of information presented in a concise fashion.

The chapters on the Spirocheta pallida and on the skin diseases are especially good, as well as those which relate to the preparation of stains and culture media.

A notable absence of recognition or mention by the authors of the methods, cultural and otherwise, introduced by American workers constitutes, in my mind, a serious deficiency in their work. The absence of adequate illustrations in the text is made up for by an appendix of colored drawings, which are very good.

As a whole, the book is a welcome addition to the armamentarium of the laboratory worker. Seemann.

Pellagra. An American Problem, by George W. Niles, M. D. W. B. Saunders Company, Philadelphia and London, 1912.

A popular work on pellagra at this time will be welcomed by many practitioners desirous of formulated information concerning the disease. The translation of Marie's book by Babcock, and the excellent monographs of Lavinder, have made the way for the present effort of a Southern writer, who has drawn freely from these sources.

There is every evidence that the author means to be practical, and in this the work is commendable. On the other hand, it is likewise evident that there has been no attempt to present an exhaustive study of the disease, as much of the contemporaneous American labor has been overlooked. All in all, the history, definition, symptomatology, research, treatment and prophylaxis of the disease receive large consideration, and in a manner which must be of aid to those seeking information.

It is noteworthy that the experiments of Bass with corn have been given notice at length, and that the excellent work of Babcock in South Carolina is emphasized.

The personal equation which permeates Dr. Niles' book makes it particularly readable, and more interesting than a dry dissertation on the subject covered.

As an effort of a Southern physician, himself an educator, this book should be read to be appreciated and estimated. The large number of illustrations add much to the book. Dyer.

Health and Medical Inspection of School Children, by Walter S. Cornell, M. D. F. A. Davis Company, Philadelphia.

This book is illuminating, and should be read by every citizen, man or woman, interested in the welfare of school children. By illustration, example and the best of descriptive text, the author presents to his audience a strong and forcible appeal for better schools and better methods in the hygienic detail of children, teachers and surroundings.

For the medical inspector, this work will prove a valuable text, and for the parent a study for municipal interest in improving conditions now existing most everywhere.

Dr. Cornell has rendered a great service in bringing together such a mass of valuable material in such a manner that it may be readily com-

prehended by the reader of average intelligence, and yet so excellently presented as to stand criticism at the hands of those expert in the problems discussed.

The writer of this review considers it a privilege to acknowledge the obligation of appreciation due the author, and to express this, in small part, by commending the study of the book to all medical men who are interested in the future of the American child. DYER.

The Friends of the Insane. The Soul of Medical Education, and Other *Essays,* by BAYARD HOLMES, M. D. Lancet-Clinic Publishing Company, Cincinnati.

A collection of short articles, trenchantly directed, for the most part, at the inadequate and, often, criminal care of the insane. Some other articles are also presented, dealing with various topics related to medicine and to medical education. DYER.

The Care of the Insane and Hospital Management, by CHARLES WHITNEY PAGE, M. D. W. M. Leonard, Publisher, Boston.

A discursive essay on the care of the insane in organized institutions.

The book is arranged under captions indicating the several topics. Each is carefully analyzed, and the reader is impressed with the earnestness of the writer, who speaks, evidently, from his own experiences and observation. Above all, trustees of insane asylums should read it.

DYER.

Compendium of Diseases of the Skin, by L. DUNCAN BULKLEY, A. M., M. D. Fifth edition. Paul B. Hoeber, New York.

The revised manual of the author into a "compendium" makes no claim for any other expansion than in the size of the text and in the scope of some details. The publisher has used excellent type and arrangement in this book. With his usual care in detail, Bulkley has presented the clinical side of a number of diseases in each group well. The concluding pages carry a number of well-selected prescriptions, with indications for their use. Of course, the diet relation to skin diseases is impressed upon the reader, and with the usual emphasis of the author. While in no sense available as a text-book, this compendium will interest the general practitioner who wishes to learn the point of view of a long-time teacher of skin diseases. DYER.

Immediate Care of the Injured, by ALBERT S. MORROW, A. B., M. D. Second edition. W. B. Saunders Company, Philadelphia and London.

After a few introductory chapters, presenting general anatomical relations, the author goes directly at the practical detail of means and usages in aiding the injured. Graphic illustrations are employed throughout the book, and in the most careful detail all kinds of injuries are considered.

In addition, chapters are presented dealing with poisons and their antidotes.

Artificial respiration, field transportation of the injured, and the handling of the injured at home, also receive attention.

The text is comprehensive in every way, and is full of practical information on many subjects—from an insect sting to the care of hemorrhage. DYER.

The New Pocket Medical Formulary, by WILLIAM EDWARD FITCH, M. D. F. A. Davis Company, Philadelphia, 1912.

In addition to some 350 pages of set prescriptions, this *multum in parvo* carries a variety of miscellaneous information for ready reference, including antidotes, weight and measures, diet lists, differential diagnosis, dose tables, etc. Of the kind, this little pocket edition of short-cuts is excellent, as all the information given is clear, well defined and authoritative. DYER.

Manual of Practical Physiology, by JOHN C. HEMMETER, M. D. Ph. D., LL.D. P. Blakiston's Son & Co., Philadelphia.

While intended primarily as a guide to the laboratory technic employed in a limited systematic course in physiology, this little book carries enough of the applied philosophy of physiology to interest any one inclined to follow the subject. The preface is full of the argument for a wider study of physiology in the subsidiary as well as in the higher educational institutions, and the mode of presenting experiments first, with their application afterwards, serves as additional reasons for the author's plea.

The illustrations are numerous and excellent. DYER.

The Care of the Skin and Hair, by WILLIAM ALLEN PUSEY, A. M., M. D. D. Appleton & Co., New York and London.

Such little hand-books can only serve an excellent purpose in educating the general reader in practical things—and in this Dr. Pusey has succeeded, in so far as describing the commoner abuses are concerned. He might have added more remedial advice, and in this lack the same general reader, for whom the book is intended, may be disappointed. DYER.

Principles of Public Health, by THOS. D. TUTTLE, B. S., M. D. World Book Company, Yonkers-on-Hudson.

While essentially prepared for the schoolroom, a wide range of readers might find a perusal of this book profitable

Many practical illustrations are employed and are aptly preesnted in the proper places. Altogether, the most practical simple book we have yet seen. DYER.

Publications Received.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1912.

International Clinics, Volume II, Twenty-second Series, 1912.

C. V. MOSBY COMPANY, St. Louis, 1912.

Laboratory Methods, by B. G. R. Williams, M. D., assisted by E. G. C. Williams, M. D., with introduction by Victor C. Vaughan, M. D., LL.D.

D. APPLETON & COMPANY, New York and London, 1912.

The Care of the Skin and the Hair, by William Allen Pusey, A. M., M. D.

P. BLAKISTON'S SONS & COMPANY, Philadelphia, 1912.

Gould & Pyle's Cyclopedia of Practical Medicine and Surgery. Second edition, revised and enlarged. Volumes I and II.

MISCELLANEOUS:

Transactions of the American Pediatric Society, twenty-third session, edited by Linnaeus Edford La Fetra, M. D. Volume XXIII. (A. M. A. Press, Chicago.)

Report of the Department of Sanitation of the Isthmian Canal Commission for the Month of April, 1912. (Washington Government Printing Office, 1912.)

Public Health Reports, Nos. 23, 24, 25, 26, 27. (Washington Government Printing Office, 1912.)

Digest of Comments on the Pharmacopœia of the United States of America (Eighth Decennial Revision) *and on the National Formulary,* by Murray Galt Motter and Martin J. Wilbert. (Washington Government Printing Office, 1912.)

Sewage Pollution of Interstate and International Waters; Sewage-Polluted Water Supplies in Relation to Infant Mortality, by Allan J. McLaughlin. Washington Government Printing Office.)

Investigation of, and Tick Eradication, in Rocky Mountains, by Thomas B. McClintoc. (Washington Government Printing Office, 1912.)

Sanitary advice for Summer Tourists and Sanitary Advice for Keepers of Summer Resorts, by W. C. Rucker. (Washington Government Printing Office, 1912.)

Studies on the Virus of Typhus, by Joseph Goldberger and John F. Anderson. (Washington Government Printing Office, 1912.)

Examination of Excreta for Typhoid Bacilli, by L. L. Lumsden and A. M. Stinson.

To Establish an Independent Health Service, speech by Hon. John D. Works, of California.

Infection, and Recovery from Infection, by Simon Flexner, M. D. (Published by Smithsonian Institute, Washington, D. C., 1912.)

Reprints.

La Question des Affections para syphilitiques en 1912; L'Action du Salvarsan dans le Tabes Dorsal, par le docteur Leredde.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans

FOR JUNE, 1912.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	4	3	7
Intermittent Fever (Malarial Cachexia)	.....	1	1
Smallpox	.....	.....	.....
Measles	.....	.....	.....
Scarlet Fever	.....	.....	.....
Whooping Cough	.....	.....	.....
Diphtheria and Croup	.....	.....	.....
Influenza	.....	.....	.....
Cholera Nostras	.....	.....	.....
Pyemia and Septicemia	1	.....	1
Tuberculosis	38	29	67
Cancer	23	10	33
Rheumatism and Gout	1	1	2
Diabetes	3	1	4
Alcoholism	.....	.....	.....
Encephalitis and Meningitis	7	1	8
Locomotor Ataxia	.....	.....	.....
Congestion, Hemorrhage and Softening of Brain	13	6	19
Paralysis	1	4	5
Convulsions of Infants	.....	1	1
Other Diseases of Infancy	19	5	24
Tetanus	1	1	2
Other Nervous Diseases	3	2	5
Heart Diseases	36	26	62
Bronchitis	.....	1	1
Pneumonia and Broncho-Pneumonia	7	11	18
Other Respiratory Diseases	1	3	4
Ulcer of Stomach	1	.....	1
Other Diseases of the Stomach	1	4	5
Diarrhea, Dysentery and Enteritis	28	22	50
Hernia, Intestinal Obstruction	1	2	3
Cirrhosis of Liver	9	5	14
Other Diseases of the Liver	4	.....	4
Simple Peritonitis	1	.....	1
Appendicitis	5	.....	5
Bright's Disease	21	18	39
Other Genito-Urinary Diseases	11	5	16
Puerperal Diseases	5	2	7
Senile Debility	6	6	12
Suicide	6	1	7
Injuries	24	18	42
All Other Causes	20	11	31
TOTAL	301	200	501

Still-born Children—White, 23; colored, 23; Total, 46.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 13.27; colored, 23.76; Total, 16.17.

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

Mean atmospheric pressure.....29.98
Mean temperature.....78.
Total precipitation.....4.11 inches
Prevailing direction of wind, northeast.

New Orleans Medical and Surgical Journal.

VOL. LXV. SEPTEMBER, 1912. No. 3

Original Articles.

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

Summary of the Literature on the Etiology of Beriberi.*

By JOHN M. SWAN, M. D., Rohester, N. Y.

Beriberi has been known, according to Herzog[1], since the second century of the Christian era, and a good description of the disease is to be found in a Chinese text-book of the sixth century. Accordto Manson[2], Scheube and Baelz were the first to call attention to the resemblance of this disease to the polyneuritis seen after diphtheria and in certain cases of alcoholism. This view has since been confirmed by Pekelharing and Winkler and all subsequent writers upon the disease. Many hypotheses have been advanced to explain the etiology of the disease. Numerous observers are of the opinion that it is due to some toxic agent taken in with the food or to the absence or undue diminution of the porportion of some essential element of a normal human dietary. Takaki[3] believed that a deficiency of nitrogen in the diet of the affected individuals was the cause of the disease. Gelpke, Miura, and Grimm believed

*Read at the Ninth Annual Meeting of the American Society of Tropical Medicine, held in Atlantic City, June 3, 1912.

that raw fish or diseased fish produced the complaint, and many authors believed the disease to be caused by mouldy rice.

Fales[4] believed the absence or deficiency of potassium salts in the diet, an accompaniment of a lack of fresh vegetables, was the underlying factor. Aron[29] believed it to be due to phosphorus starvation.

Ashmead[5] ascribed the disease to the excessive inhalation of carbon dioxide.

Glogner and Heanley[6] and Hewlett and De Korte[34] believed it to be due to a protozoan infection, and Noc[39] believed necator americanus infection was a factor in addition to lack of sufficient nourishment.

Ross[7] believed it to be due to arsenical poisoning. Manson[2], Pekelharing and Winkler[8], Hamilton Wright[9], Okata and Kokubo[10], Tzuzuki[11], Wheate[30], Pearse[31], Lovering[32], Schubert[33], Daniels[40], and others believed the disease to be of bacterial origin. Manson was of the opinion that the organism resided in the soil or in the houses and surroundings of beriberi locations, and that it produced a poison, which, when absorbed by man produced a neuritis, much in the same way that alcohol does.

Hamilton Wright[9, 17, 18] considered beriberi to be an acute infectious disease, which begins as a gastroduodenitis, which runs a fairly definite course and which ends in recovery or in residual paralysis. He thought it was in no way dependent on diet and that he had proved its transmision to monkeys.

Dudgeon[12] working with bacillus isolated from the feces by Wright and an identical organism isolated from the duodenum concluded they bore no etiological relation to the disease.

The organism discovered by Okata and Kokubo was a coccus. Herzog[13] has shown the fallacies in the work of these authors and has demonstrated the lack of etiological relation of the organism to beriberi. In the same paper he published the negative results of examinations of the hair of beriberis for arsenic. At the same time, he believed the disease to be an acute infection.

Hunter and Koch[14] have also reached the conclusion that none of the organisms isolated from beriberi patients have any etiologic relation to the disease. Furthermore[16], after a series of experiments on monkeys, they concluded that beriberi was not an infectious disease in the strictest sense of the term. Fraser and Stanton[20] failed to find organisms in the blood of beriberis, except those known to cause other diseases.

The majority of observers have been of the opinion that beriberi is associated in some way with the chief article of diet of the Oriental, rice. When various observers succeeded in producing a fatal polyneuritis in fowls by feeding them on spoiled rice the connection seemed to be definitely proved. Fraser and Stanton[22], Holst and Frohlich[23].

Gimlette[15] reported an epidemic in the Soker district of the Malay peninsula which seemed to be definitely dependent on bad rice; and Chamberlain[26] has reported the almost complete eradication of beriberi from the Philippine scouts by reducing the amount of rice used and substituting a legume, mongo, for the rice. At the same time an undermilled rice was substituted for the highly polished rice formerly used. De Haan[37] added a form of green pea rich in phosphorus to the dietary of the Netherlandish East Indians in the reduction of beriberi morbidity, and Van Andel[38] recommended a leguminous diet as a prophylactic. Ellis[35] believed the disease to be due to uncured rice, and observers in the Philippine Islands noticed an increase of the disease among the Filipinos after the introduction of improved rice milling machinery.

The studies of Fletcher[19, 36], and Fraser and Stanton[20, 21, 22] in the Malay Peninsula, and of Chamberlin and Vedder[24, 25] in the Philippine Islands seem to prove the connection.

In the Malay Peninsula there are practically two kinds of rice: First, uncured rice in which the grain is prepared in mills by being husked between revolving mill stones and subsequently polished by friction between a revolving stone and fine wire gauze. This rice is also called "white rice," Siamese rice, Rangoon rice, etc. It is the staple diet of the Chinese miner, the town Malay and all other inhabitants, except the Malays of the rice growing districts and the immigrants from India. Second, cured rice. This rice is prepared by the natives either at home or in special mills. The rice is freshly husked at home by the women (home-pounded rice) or the unhusked grain is soaked in water for from twelve to twenty-four hours or longer. It is then heated in vessels containing water over a slow fire until the husks burst. It is then spread out and dried in the sun, and then by light rubbing between the palms of the hands the husk is removed. It may be husked in mills, but in such a case is not polished by friction. Braddon[27] believes that uncured rice is the cause of beriberi and that the polishing of the grain removes some essential nutritive element of the rice.

Fletcher[19], in 1906, divided the inmates of the Kuala Lumpur Lunatic Asylum into two groups of 124 and 123 respectively. The group of 124 inmates was fed on uncured rice or white rice, with 34 cases of beriberi, two of whom had beriberi on admission, and 18 died.

The group of 123 inmates was fed on cured rice, with 2 cases, both affected on admission, and no deaths.

The two groups of patients were kept in separate wards, fed at different times with different sets of dishes and cooking utensils. Otherwise the patients were allowed to associate. At the end of six months the wards in which the two sets of patients were kept were changed. The experiment was continued in 1907, alternate patients being admitted to the cured and uncured rice wards. One hundred hundred and thirty-six inmates were treated in the uncured rice wards, with twenty-eight cases of beriberi, four of whom were suffering from the disease on admission. One hundred and thirty-one inmates were treated in the cured rice wards; four of these were admitted with beriberi; but no patient developed the disease in the asylum.

Fraser and Stanton[20, 21] divided 493 Japanese coolies into two groups and housed them one mile apart. They were in the jungle entirely removed from the influence of surrounding population. Two hundred and twenty of these were fed on white rice or uncured rice, and twenty cases of beriberi developed among them. Two hundred and seventy-three were fed on parboiled or cured rice; no case of beriberi developed. No case of beriberi occurred in any coolie who had been on white rice for less than eighty-seven days.

In a further study of the same subject Fraser and Stanton[22] say that the occurrence of beriberi in the Malay Peninsula has an intimate relationship with the consumption of a diet of which white, polished rice forms the staple. Those who consume unpolished rice or slightly polished (native Malay or parboiled) rice do not suffer from the disease. They found that fowls fed exclusively on polished white rice developed a polyneuritis within three or four weeks. If, however, the meal or polishings removed from such white rice in the process of milling were added to a diet of polished white rice the fowls remained healthy. They, therefore, concluded that substances essential for the maintenance of health are contained in the polishings. On the other hand, unpolished rice will cause polyneuritis when fed to fowls if it has been sterilized in

the autoclave at 120°C. for two hours. Consequently, the protective substance or substances are destroyed by heat. The authors found no specimen of rice which yielded a phosphorus pentoxide content of 0.4% or over, associated with human beriberi or with polyneuritis in fowls.

Chamberlain and Vedder[24] showed that polyneuritis of fowls could be prevented by means of an extract of rice polishing of the following composition: Total solids, 1.34%; ash, 0.03%; phosphorus pentoxide, 0.00165%; nitrogen, 0.0406%; sucrose, 0.88%.

They have maintained[25] twenty-seven fowls in health on a diet of polished rice by the addition of this extract. They regard it as proved that the extract of rice polishings contains a neuritis-preventing principle. They have not succeeded in isolating the substance; but believe it is to be found in the 0.4% of solid matter left in the extract after eliminating the ash, the nitrogenous matter, and the sucrose. It must be soluble in water, in 95% alcohol, and in 0.3% hydrochloric acid; it must be dialysable, easily decomposed by heat and have a strong affinity for bone black. The same or a similar substance is contained in a decoction of white beans, which Chamberlain and Vedder have used as a substitute for the extract of rice polishings as a preventive of *polyneuritis gallinarum*. Furthermore, they have used their extract of rice polishings in the treatment of beriberi in infants who were being breastfed by beriberi mothers. Twenty drops of the extract of rice polishings were given every two hours while the children were awake. The vomiting stopped in twenty-four or thirty-six hours. The child, who had previously been anuric, began to pass urine. The edema disappeared. Usually on the first night after the treatment was begun the infant fell into a deep sleep, although previously it may have been sleepless for several weeks. The cases were cured in a week except the aphonia, which requires about two months of treatment. Chamberlain and Vedder[28] believe this to be a cure just as lime juice is a cure for scurvy.

The work of Fraser and Stanton and of Chamberlain and Vedder was going on simultaneously and the fact that practically the same results were obtained in the Federated Malay States and in the Philippine Islands is very interesting.

May we say then that, so far as our present knowledge goes, beriberi is a disease of metabolism, characterized, pathologically, by a polyneuritis, and clinically, by an acute stage resembling an acute

infection, by a stage associated with marked edema, and by a stage of polyneuritis and paralysis, and due to a diet of which uncured or white rice forms the principal element?

Since preparing the manuscript of this paper I have discovered two other communications concerning the etiology of beriberi. One by Cooper and Funk (*Lancet,* November 4, 1911), in which the authors find, as the result of experimental work, that polyneuritis in birds is due to the absence of some substance from the rice upon which the animals were fed, which is not of proteid nature, which is devoid of phosphorus, which is soluble in water and acid alcohol, which is dialysable, and which is precipitated by phosphotungstic acid.

In the second paper by Little (*Journal of the American Medical Association,* June 29, 1912), the author calls attention to the existence of a disease in New Foundland resembling beriberi in its clinical manifestations, which he believes is due to a preponderance of overmilled white wheat flour in the dietary of the victims.

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Investigation of Louisiana Rice with Reference to the Etiology of Beriberi.*

By DRS. CREIGHTON WELLMAN, C. C. BASS, ALLAN C. EUSTIS, New Orleans.
(Paper read by Dr. Wellman.)

We had hoped, and it was so announced in the program, to have had the aid of Dr. Eustis. On account of pressure of other duties, Dr. Eustis was unable to come with us on this investigation, and it has been carried out by Dr. Bass and myself. Experiments were begun by Dr. Bass and myself and continued by myself since Dr. Bass went to Central America on our first malaria research expedition from the Department of Tropical Medicine. While I am unable to show a large number of slides which I had prepared, because we cannot secure a lantern, I fortunately brought with me a number of photographs and some specimens which I shall pass around during the course of my remarks, and which I trust will elucidate some of the points.

With the purpose of determining whether or not the experimental

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results obtained by various writers with the polished rice of the Orient could also be obtained with rice grown in Louisiana—that in common use throughout the South—the authors have undertaken a series of experiments which are still in progress, and of which the following is an account: (In the future a more detailed account of of the experiments with description of results and conclusions will be presented.) In the present short summary, it is enough to say that the best culled Louisiana white rice was obtained at the mill after the chaff had been removed, and was designated as unpolished rice. Another sample of the same lot was obtained after culling and finishing ready for market, except that the final coat of glucose and talcum had not been applied. Only rice used in Louisiana and milled there was studied. It is what is known as Louisiana white rice, and contains no reddish grains.

In the first series of experiments two hens were put in a cage and fed unpolished rice—all they could eat—and nothing else. Two others—a cock and a hen—were put in another cage and fed exclusively polished rice. All received plenty of water. Those fed upon polished rice became emaciated, though they ate a great deal of rice. On the 18th day the cock walked as though stepping on something sharp. He raised his feet with a jerk. On the 21st day he was unable to stand—falls when trying to walk—head drawn back when excited—cannot straighten out toes which flex immediately if forcibly extended by observer. Fowl very thin and from this point on was fed artificially. On the 22nd day he was unable to stand or move his feet and legs, and had to be propped up to have his picture taken. Another photograph taken the same day shows complete paralysis of the feet and legs. On the 23rd day he was unable to raise his feet or to resist handling, but could hold his head up a little at times. The toes were relaxed in the position shown in this photograph, and from this time on forced feeding and watering were resorted to, the fowl receiving generous quantities of polished rice. On the 26th day the condition was about the same as when noted last, but on the 29th day a slight return of strength was noted. He cannot walk but stands when placed upright. On the 31st day he was able to walk a few steps, but with a very toxic gait, his feet striking his breast when he walks. This fowl gradually improved, but we learned that he had been given a few morsels of dog meat against orders. He was then set free and given a general diet, upon which he regained strength rapidly, and

is now well—about ten months after his neuritis. The hen in the same cage, fed upon polished rice, became rapidly emaciated and finally died on the 26th day without showing nerve symptoms, though she appeared to starve to death on the rice. The other two fowls mentioned as being fed during the same period on unpolished rice, fattened rapidly and were very plump and heavy up to the 22nd day, when we began to feed them with an exclusive diet of polished rice. On the 29th day after the change of diet, one hen developed complete paralysis, being also greatly emaciated. She was now fed unpolished rice again through a stomach tube and later a general diet. She was turned out on the fourth day, being able to stand and eventually completely recovered.

The other hen fed with the last mentioned rice developed opisthotonos and muscle spasm on the 18th day after changing the diet to unpolished rice. This condition grew rapidly worse. She was photographed on the 18th day, showing convulsions. On the 20th day she was put on unpolished rice again and later a general diet, with rapid improvement and complete recovery. It should be noted that when the fowl were fed long on polished rice, they would pick eagerly at any other diet shown them, but would not pick up the rice.

After making these experiments with Louisiana polished rice subsequent to Dr. Bass's departure, we considered that possibly these phenomena could be produced with other food than rice; so we took six dozen chickens and divided into lots. One lot we placed upon a general diet for control. A second lot we placed upon unpolished rice; a third lot upon polished rice; a fourth lot upon polished rice plus a watery extract of the polishings obtained by the salicylic extraction apparatus; a fifth lot upon polished rice plus an alcoholic extract of rice polishings; a sixth lot upon cane sugar; a seventh lot upon corn starch; an eighth lot upon New Orleans molasses; a ninth lot upon a mixed diet plus arsenic; a tenth lot upon a mixed diet plus oxalic acid. These experiments are now in progress. I had planned to show you samples of these fowls after having been fed upon this diet. I am sorry to say I have but one specimen to show you. We started with more, but upon reaching a certain point between here and New Orleans the baggage master enchanted me by telling me he had found some of my chickens very sick; he was unable to revive them and one he had thrown away. The one he threw away was one which developed typical polyneu-

ritis on a diet of cane sugar. (Shows live specimens.) This is one incomplete example which has been fed on polished rice with a small amount of cane sugar. The fowl fed upon cane sugar had complete paralysis as well as that fed upon polished rice, and the fowls fed upon pure corn starch are just developing paralysis which promises to be as complete as that with polished rice. We have not worked out the electrical reactions, but it seems to be a typical polyneuritis. You will notice the flexor muscles are more affected.

In conclusion it may be said that marked nerve symptoms appear after seventeen to twenty-three days in fowls fed exclusively upon polished Louisiana rice. The same rice unpolished does not produce the disease, and such rice with a general diet promptly cures the disease. A diet of pure cane sugar will produce this characteristic more rapidly and completely than polished rice. Pure corn starch will produce the condition rather more slowly than polished rice. Our experiments with arsenic and other drugs in connection with a general diet are not far enough advanced to permit of conclusions.

We are now carrying on a series of experiments with a larger number of fowls with the hope of ascertaining, if possible, the nature of this neuritis and its relation to the human disease known as beriberi.

In view of the fact that I have not been able to show my lantern slides, I will have to make shift with my photographs and one surviving specimen.

If it be your pleasure I would like to take up one other point regarding some investigations upon which Dr. Duval and myself have been working for the past nine months, namely, leprosy. In the first place, those who attended the last meeting of the American Society of Tropical Medicine will remember I read an article on the use of salvarsan in leprosy. I became interested in the therapy of leprosy several years ago on account of some conversations which I had with Prof. Dyer, whose work on the subject you all know, and I tried salvarsan in a series of cases of leprosy in California. The clinical findings I presented at the last meeting. I was not over-sanguine about the results there obtained, but later, on examining the histobiology of the cases treated with the drug, I was interested to find that something more than clinical amelioration which might be at-

tributed to the clinical effect of arsenic might be demonstrated. Salvarsan in rather early cases of leprosy is of very great value in the treatment of the disease. I will first pass around some pictures showing a low power view of the active lesion. You will notice the thinning and the smoothing of the epithelium. The histological structure is not well shown in the low power view, but here is a high power view of the same, showing that we not only have giant cells but a low grade inflammatory process. There is some infiltration of polymorphonuclear leucocytes typical of low grade inflammation plus a granulomatous leprous lesion. The next picture shows a low power active leprosy lesion. On one side there is an immense globus filled with bacilli, and to the right and center a large cell with many nuclei. The next picture is a high power view of the same lesion showing the globus and numerous nuclei and masses of bacilli. This shows a slight tendency to resolution. The next picture is taken some fourteen days later from a similar lesion. In this you will see a marked attempt at resolution. You will notice a distinct infiltration of epithelioid and plasma cells, a typical histological picture of beginning resolution. The next picture is the complete stage of resolution. This is a low power view. You will notice the different appearance of the epithelium, reorganization of the skin, showing the elements of the epithelium; and a high power of the same picture will show you that the live areas in that are real fibrous tissue; it is a cicatrix, and these dark areas are only a few fibroblasts. The resolution of that nodule is complete.

In working with leprosy during the past nine months, Dr. Duval and myself have been working on the cultivation of the bacillus of leprosy, in which field as you all know he has done a large amount of experimental work. We have recently come to the conclusion that the chromogenic acid-fast bacillus, first described by Clegg, is to be regarded as the etiological factor in leprosy. We have during the past few months isolated from a leprous lesion a slow-growing, non-chromogenic bacillus without the polymorphism of the Clegg bacillus, which, with the two exceptions, can hardly be told from tubercle bacilli. First, it will not grow except upon a special medium, either in the beginning of isolation or in later transplants. It cannot be coaxed into saphrophytic media, but can only grow on special media —hydrolyzation. This culture has been placenta media, a medium devised by myself. It is made by taking human placenta, infusing at refrigerator temperature for two hours, and then sterilizing by

filtering through a Chamberland filter. You will remember, according to most researches, that human placenta at term is very rich in amino-acids before putrefaction has taken place. You have in this medium a very close reproduction of the habitat of the leprous bacillus in infected tissue. This is the non-chromogenic bacillus which we are inclined at present—without saying that the Clegg bacillus has no etiological significance—to lay great stress upon. I have a number of other cultures which have been isolated from leprosy. Here is the leprosy bacillus which we have isolated ourselves and those received from numerous workers throughout the world. Here is Rost's bacillus from India. This is Barry's bacillus. This is Brinkerhoff's bacillus. Notice how closely they correspond in chromogenic features. Here is a bacillus isolated in Australia by Thompson. Here is the bacillus from Hawaii. Here is Currie's bacillus from the Sandwich Islands. Here is the bacillus first isolated by Duval in New Orleans. For comparison I have some other acid-fast bacilli. You will notice all of these strains have been isolated from leprosy, with the single exception of the non-chromogenic strain first handed to you. Here are some photo-micrographs of this non-chromogenic bacillus. Here is a lesion produced in the liver of a rabbit. If you will compare that with the leprous lesions in micro-photographs which I made from a leprous lesion you will see it corresponds very closely. Here are some lesions produced with this non-chromogenic bacillus which are histologically typical of human leprosy. Here is a nodule in the testis of a rabbit. Here is a nodule in the liver of a rabbit. These are swarming with acid-fast bacilli. For comparison, here is the lung of a rabbit. The lesions differ in macro and microscopic characteristics.

Before closing I should like to announce that we have succeeded in isolating pure cultures of tuberculosis from lesions, from sputum, from urine and from cerebro-spinal fluid within seventy-two hours. We have found placenta media very valuable. We can isolate, not only acid-fast organisms from leprosy, but the bacillus tuberculosis from lesions and exudates, and we believe it will prove of great value in bacteriology.

The Public Health Aspect of Beriberi.*

By R. H. CREEL, U. S. Public Health and Marine Hospital Service.

PREVALENCE IN THE UNITED STATES.—The incidence of beriberi within the confines of the continental United States has been of such infrequency that the disease does not constitute a public health problem in this country.

The cases have been confined to comparatively small, sporadic outbreaks scattered throughout the last twenty or thirty years. In 1890 Putnam reported cases among New England fishermen and referred to other cases occurring during previous ten years.

In 1895 and 1896, Bondurant described an epidemic of seventy-one cases in the State Insane Asylum at Tuscaloosa, Ala.

In 1895 there was also an outbreak of beriberi in the State Asylum at Little Rock, Ark.

In 1907 the Superintendent of the State Aslyum at Austin, Texas, reported two hundred cases for that year, and stated there had been a few cases each year since 1891.

In 1909 the California State Board of Health reported twenty-five deaths from beriberi during years 1907, 1908 and 1909, confined almost entirely to Chinese and Japanese. Estimating the mortality of beriberi at 15%, this would make a possible case incidence of nearly 200.

Acting Assistant Sims reported an epidemic of seventeen cases with eight deaths in South Carolina among a party of thirty-one convicts during 1910. Local physicians at that time stated similar cases had been observed by them for several years.

Passed Assistant Surgeon Long saw beriberi in 1910 among the inmates of South Carolina State Penitentiary at Columbia.

The description of the disease as fully set forth by Sims leaves some doubt as to whether his cases were beriberi or epidemic dropsy. The total absence of paralysis and anesthesia would rather indicate the latter disease.

There was no rice in their diet, but there were cereals.

Beriberi patients from New Foundland Banks have been treated in the U. S. Marine Hospital at Boston.

Young in 1903 described a series of cases in Louisiana and mentioned the fact that during preceding five years he had seen many

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cases in a comporativcly small area. Before that period he had never seen beriberi in the vicinity.

Rice culture had greatly increased in recent years and the patients were among "heavy eaters of rice."

Altogether though, beriberi is comparatively rare in this country, which is to be expected in considering the etiology.

General Prevalence.—From a broad view point, however, beriberi throughout the world is possibly without exception the greatest scourge we have, considering the deaths, and the disability of non-fatal cases with the resulting economic loss to the state.

It is a world-wide disease. Briefly stated, it prevails in South America, especially Brazil, where it has occurred with great severity, in various parts of Africa, the South Sea Islands, East Indies, Australia and various countries of Asia. There have also been cases in West Indies and Central America.

Europe apparently has remained free from it except sporadic or imported cases. An extensive epidemic occurred in a Dublin Asylum (Richmond) in 1894, 1895 and 1896, but otherwise beriberi incidenced in Europe has been negligible.

The disease is very common in shipping in every part of the world.

Among European sailors the Norwegians seem to suffer the most. From 1896 to 1901, of 429 ships calling at Falmouth, Dr. Bullmore recorded beriberi present on forty-eight. Of this number 65% were Norwegian vessels. Of the forty-eight ships, forty-five were sailing vessels, which partially accounted for the preponderance of cases among Norwegian vessels.

In the Orient, beriberi is very common on vessels, especially those carrying a rice eating crew, Chinese, Japanese, Malays or Lascars.

Rees is authority for the statement that half of all ships carrying Lascars have beriberi.

While on quarantine duty at Manila I often noticed beriberi among Orientals but never among European crews.

While it is thus seen that beriberi is found in almost every corner of the earth, it is in the Southeastern part of Asia that the disease is truly a scourge.

The toll of human life there and the economic loss resulting is appalling.

In the beriberi zone extending from Japan to Australia and from

the Philippines to India, thousands die each year and many thousands more are incapacitated from beriberi. And it is on the increase.

PREVALENCE IN ORIENT.—In the Orient the origin of beriberi is clouded in mystery. Numerous authorities have considered the epidemic of 1882 as being the first time that beriberi occurred in the Philippines, but cases were reported as present in Zamboanga in 1852.

Beriberi was present in Singapore jails in 1869, but did not occur in any great numbers till 1878.

It is fairly reasonable to presume that there were sporadic cases of beriberi in the Orient a great many years previous to the epidemics of the late '70's and '80's which brought the disease prominently to the notice of sanitarians.

Any one familiar with the inaccuracy and unreliability of native diagnosis can appreciate this probability.

For instance: in the account of the Bangkok epidemic of 1900, Dr. Nightingale states that even after the cases had reached a great number the native officials were under the impression that it was plague.

In 1878 there was a big epidemic in Singapore jails. In 1882 Manila was ravaged by the worst of all recorded beriberi epidemics.

Dr. H. C. Highet, Health Officer of Bangkok, says, "there was no record of beriberi in Bangkok previous to the outbreak of 1890 in the jails which was eradicated by return to hand milled rice, and did not reappear till 1901."

He further added that the epidemicity of beriberi in Bangkok was coincident with the retail locally of steam milled rice. There had been one of two steam mills in Bangkok as early as 1880, but they exported their product." It was only in the latter part of the '90's that, attracted by the immense profits derived thereby, many steam mills commenced operation.

In Siam beriberi became common in 1901 and from that date to 1909 there were 22,670 cases in the police army and navy. Figures for the prevalance among the civilian population were not available, but presumably the disease among them kept pace with above case-incidence.

Highet associates the epidemicity of beriberi in Siam with the large production of steam milled rice.

The coincidence holds good in the Philippines and probably does also throughout the East.

In the Chinese-Japanese War it is said that 45% of the Japanese army was disabled by beriberi. In the Russo-Japanese War some 200,000 Japanese contracted beriberi.

In the Federated Malay States, Braddon, in 1907, estimated the yearly case incidence per 1000 Chinese as forty. In a Chinese population of 500,000 this would mean 20,000 cases per year.

The native Malays who chiefly consume hand milled rice are much less affected by the disease. Continuing, Braddon estimates the cost of beriberi to the Government in direct hospital charges as $50,000 per year, and a total indirect loss of producers from death and incapacitation amounting to over a million dollars annually.

In French Indo-China, and the Netherlands East Indies, the prevalence of beriberi is much the same as in the Philippines, Siam and Malay States.

Beriberi in the Philippines.—The history of beriberi is about the same as in the surrounding countries. According to several authorities there were no cases prior to 1882, in which year an epidemic occurred that killed thousands. Malabon, a town of 25,000 population, near Manila, in the months of November and December alone had 300 deaths. Capt. E. D. Kilbourn, however, quotes Schneider to the effect that beriberi cases were present in Zamboanga in 1852. Certain it is, though, that any cases of the disease before that date must have been very few. It is significant that the export of rice from the Philippines prior to 1878 exceeded the import, and the first marked reversal of this order was in 1882, when 8,971,306 kilos of rice were imported and only 840 kilos exported. From that time on millions of kilos of rice were imported each year and very little exported.

Since 1898 no rice has been shipped out and the quantity of steam milled rice has steadily increased; and so has beriberi. In 1902-3 over 300,000,000 kilos of rice were imported and during the last decade the amount has never fallen below 100,000,000 kilos.

I can not state positively, but am fairly certain, that imported rice is always steam milled. It is highly presumable that prior to 1882 most of the rice consumed in Philippine Islands was hand-milled. Exact figures of beriberi prevalence prior to American occupation are not ascertainable, but since that time the mortality statistics have been registered.

The following table gives mortality of beriberi in the City of Manila, with accompanying figures for cholera deaths for comparison:

Fiscal Year, July 1-June 30	Deaths. Cholera.	Deaths. Beri-beri.
1903- 4	423	318
1904- 5	44	291
1905- 6	317	378
1906- 7	586	403
1907- 8	314	492
1908- 9	587	924
1909-10	270	970
1910-11	136	1,480
Total	2,704	5,246

The population of Manila is about 225,000. It is thus seen that in 1910-11 the death rate of beriberi per 100,000 was 656. Estimating the mortality of beriberi at 20% the above mortality rate would give a case incidence of 3,250 per 100,000.

For the period 1903-1911 the total deaths from beriberi were, in Manila, 5,246 to 2,704 deaths from cholera, the latter figure including two epidemics as well as the yearly endemic rate.

In the year 1910-'11, beriberi caused 1,480 deaths in Manila of a total mortality of only 7,778; almost one-fifth of all deaths. Tuberculosis was a poor second, with 1,052 deaths, and cholera only 136. Of course a most determined fight is always put up against cholera.

What must it be in other ports of the Orient, when this condition exists in Manila that has a Bureau of Health with an efficiency of organization and administration second to none in the East, if indeed to any at all.

In the Provinces the figures are not so appalling. While native reports and statistics are notoriously inaccurate and untrustworthy, still beriberi is far less prevalent in the interior of the Islands; for one reason, at least, due to the fact that the inland population chiefly use native palay and hand-milled rice.

In twenty-nine provinces, exclusive of Manila, with a population of 5,400,000 people, there were, in the year 1910-11, 1,656 deaths; a mortality incidence of thirty-one per 100,000, with an estimated case-incidence of 155 per 100,000.

In Bulucan, with 226,000 population, there were 273 deaths, a rate of 121 per 100,000; in Rizal, 251 deaths in 153,000 people, with a rate of about 170 per 100,000. Including Manila population the mortality incidence for the Archipelago is fifty-five per 100,000, or a case incidence of 275 per 100,000. The mortality rate of typhoid in America is twenty-two per 100,000, and we very justly characterize the latter condition a national disgrace.

It might be of interest to mention in conclusion the studies by P. A. Surgeon McLaughlin and Dr. V. L. Andrews in Manila of the high rate of infant mortality caused to a great extent by infantile beriberi. In 1909 the death rate of infants under one year was 48% of the total mortality in the city of Manila. McLaughlin and Andrews autopsied a series of 176 cases with the following results:

Clinical Diagnosis.		Necropsy Finding.	
Meningitis	37	Cholera	40
Enteritis	22	Beriberi	97
Convulsions	40	Pneumonia	14
Beriberi	50	Entero-colitis	7
Bronchitis	27	Other diseases	14
	176		176

I have not any statistics bearing on the result of measures that were instituted toward lessening this death rate, but I understand that the measures adopted have been met with striking success.

Summary.—Summarizing the prevalence of beriberi, it is seen that the disease is confined chiefly to those people that mainly subsist on rice. The Moluccas, where the allied diet of sago obtains, is an exception.

The origin of beriberi is not recorded, but the great increase of cases has been coincident with the increased production of steam milled rice, and is proportionate in different localities to the amount of polished rice consumed.

In the Philippines and other parts of the Orient, beriberi outside of Government controlled institutions, has been on marked increase during the past decade.

The mortality in Manila from beriberi during the last eight years has been double that from cholera, and has exceeded that from any other disease. Beriberi in the United States has not shown any great prevalence and is not a matter of concern to us from a public health standpoint.

Prevention of Beriberi.—If the diet of the Oriental be liberally increased or made equivalent to a Western standard there would no longer be a beriberi problem.

The prevention of beriberi is all very easy on paper, but the practical application of prophylaxis is quite a different matter, when we consider the small sanitary force at work among a people that are not at all overly keen in co-operation with alien advisers or administrators.

Even in our own boasted intelligent country sanitary laws and regulations are not always enthusiastically supported. While beriberi in the East has been steadily on the increase during past years it is very probable that it has reached its maximum of incidence, in as much as effective preventive measures are now being applied.

Sanitarians in the Orient have been for years thoroughly alive to the problem of beriberi and have succeeded in suppressing local outbreaks during recent years by dietary changes. No practical scheme has been evolved, though, for any restrictive measures of wide and general application until the last two years. Due to the brilliant work of investigators in Batavia, Singapore, Manila, Japan and other parts of the Orient by laboratory experiments and by epidemiological studies, there now seems to be a solution of the problem.

To enumerate only a small part of all the research would unduly prolong this article and merely duplicate other papers.

Briefly stated, the results obtained from research work in laboratories by Eijkman in Batavia from the year 1886 to 1896, and Stanton and Fraser at Singapore in 1909-10, proved beyond question that polyneuritis in fowls could be caused by a feeding of scoured rice, but not by red rice; and that if the rice polishings, containing the pericarp and aleurone layer, be added to the white rice it prevented the occurrence of polyneuritis.

Vordeman, prompted by Eijkman's observations, in an extensive investigation of the relation between white rice and beriberi in the Java prisons for a period of 18 months, adduced very conclusive evidence of the causation of beriberi by white rice.

Braddon, Highet and many others in the East have furnished epidemiological data strongly corroborative of this contention.

Aron in Manila in 1910, made it evident by chemical analysis that overmilled rice that contained less than .4% P_2O_5 would cause beriberi, but that rice containing P_2O_5 in excess of that amount was safe for consumption. And it is with this standard that practical preventative measures can be obtained.

Aron clearly demonstrated the efficiency of this standard in the case of S. S. "*Knight Templar.*"

June 5 the *Knight Templar* cleared from Bombay using, at first, for crews' ration a Calcutta rice; later Bombay rice was used.

At Liverpool, July 25, a fresh supply of highly scoured rice was procured and the ship sailed for Manila.

September 25 occurred the first case of beriberi. On October 16 the vessel arrived at Manila and two cases were sent to hospital. On October 25 ten more members of the crew were sent to hospital.

At this juncture the scoured rice was abandoned as a ration and Bombay rice and Manila red rice substituted.

No further beriberi cases developed on this diet. Dr. Aron analyzed the three different grades of rice and determined the phosphorus pentoxide content as follows: Calcutta rice .446%; Bombay rice .408%; while Liverpool rice had only .148%.

In 1911 at the meeting of the Far Eastern Society of Tropical Medicine, P. A. Surgeon Heiser, Director of Health for Philippine Islands, suggested in accordance with Aron's work, a standard of 4% $P_2 O_5$ be adopted as a minimum requirement in rice and advocated fiscal measures in nature of high tax on rice falling below this standard. In 1911 a bill was drafted for imposition of a tax of five centavos per kilo on all polished rice sold, foreign or domestic. Polished rice meant rice having less than .4% $P_2 O_5$. The bill failed to pass. In 1910 though, the Governor General had issued an order that white rice in all Government institutions be supplanted by red rice.

How such food laws operate in obtaining practical results can be seen from the following statistics:

Among the scouts during 1908 there were 121 cases of beriberi per 1,000 in a force of about 5,000 men. In 1909 there were 103 cases per 1,000. But in 1910 there were only nine cases of beriberi per 1,000. This was due to the substitution in the ration of undermilled rice for white rice and the addition of mongoes.

Among the scouts fifteen consecutive months, six cases up to Sept. 30, 1911. Same diet as '08-'09 except rice.

In Culion Leper settlement there had been each year since its establishment a heavy death rate from beriberi. In 1909 there were 309 deaths from beriberi.

In January, 1910, unpolished rice as part of ration was made compulsory. During the ensuing year there were no deaths from beriberi, though some fifty cases occurred in February that were cured by administration of rice polishings, sixty grams per diem to each patient, as a result of the rice order by the Governor General in 1910. Dr. Heiser reported in the spring of 1911 that in all the municipal jails, lighthouse stations, charitable institutions and

Government ships in the Islands, there had been only two cases of beriberi for the period August, 1910, to March, 1911. The signal success attendant upon enforcement of the Governor General's order is all the more marked when it is noted that among the population at large beriberi was on the increase during the year 1910-11, jumping from 970 cases in 1909-10 to 1,480 in the year 1910-11.

Under existing circumstances and in view of the increasing rate of beriberi during the past decade, it would seem to be a more effective measure and a justifiable one to enact rice laws similar to the corn laws of Italy with the $P_2 O_5$ requirement stated.

In Italy there were 1,623 deaths from pellagra in 1907 of a population of 33,362,167, a mortality incidence of 4.8 per 100,000. It is most natural that the argument be advanced that rice is the staple of the Oriental and that any fiscal law effecting commercially this important product should be attempted with much caution and conservatism. Polenta is much in the same food relation to the Italian peasant as rice to the Malay, and if the Italian Government can enact rather radical food laws in Italy with a pellagra death incidence of 4.8 per 100,000, we in the Philippine Islands would be far more justified with a beriberi death rate of fifty-five per 100,000, in passing a rice law. The Italian corn laws fix a standard of 5% mould for corn imported into the country or for sale or distribution. A system of inspection is specified and penalties by means of confiscation or fines is provided for.

Following along the lines of the corn law, a rice law would fix a standard of .4% $P_2 O_5$.

All rice cargoes would be tested by an inspector and barred entrance if below that amount. All mills within the country would have their products examined at varying intervals to assure compliance with the law.

Likewise should the rice for sale in places of retail or wholesale be subject to the same requirements. A penalty of confiscation or fine would probably produce a rice supply in the markets safely above the minimum requirement of $P_2 O_5$. Dr. Highet of Bangkok, who has studied the question, says that steam mills can produce if necessary an undermilled product of about the same grade and quality as handmilled rice. Naturally it may cause the millers some inconvenience to change the established process of milling, but it can be done without any radical departure from the old methods. While white rice may excel in flavor, still I think the chief objection

in the Orient on the part of the masses is the red color of undermilled rice.

There are all degrees in rice as to color of pericarp, and the objection to color could be overcome by the encouragement of the culture of rice with a white pericerp. Education of the public to cause and prevention of beriberi will materially aid public health measures. As to prevention of "ship-beriberi," in the merchant marine scurvy has been eliminated by enforcement of dietary regulations. The same for beriberi can be done by the application of laws that forbid overmilled rice in ration of crew and which provide a generous allowance of beans or other lentils.

This would especially be desirable in sailing vessels or ships making long voyages. The United States Quarantine laws do not take cognizance of beriberi on ships. As the disease has been very conclusively shown to be non-communicable it is not included among quarantine diseases. When ships arrive at quarantine stations with beriberi on board, however, the captain is generally advised by the boarding officer as to remedial measures without detaining the vessel. The State Quarantine at Philadelphia, though, I believe imposes restrictions on beriberi ships. The United States Immigration law does not specifically exclude beriberi cases, but it falls under the classification of diseases affecting ability to earn a living.

Discussion of Papers on Beriberi.

Dr. Wilbur, of San Francisco.—I have followed the literature in beriberi and have had some cases. I feel we must make a distinction between polyneuritis due to inanition and that due to infectious microorganisms. It is particularly difficult for me to understand why on shipboard a number of sailors and officers should all come down within the space of a few days with acute symptoms of beriberi, and even die within a day or two. Certainly one would expect, if it is entirely due to food, these men with their varying situations and occupations, the different amounts they eat, and some variability of diet between officers and crew—that we would get much more scattered cases rather than epidemic. While I have seen little of this disease, it has been brought to my attention largely through the stories of men in public clinics after reaching shore.

Dr. John Myers Swan, of Canton, China.—It may be somewhat of a surprise to you if I state that we are, in the province of Canton, and more particularly in Canton, practically outside of the zone where beriberi is very prevalent. We had in 1907 a very severe outbreak of beriberi in the military camps to the east of the city, where there were about 6,000 troops, and there were at that time during that spring season about 600 cases, with a mortality of something like 20 per cent. At that time it appeared to us to be due more than anything else to the importation of polished rice. It followed a season of drought, when large quantities of rice had been imported. Throughout that province, which contains a population of 38,000,000, there are three crops of rice produced annually, and it is seldom that polished or foreign rice, as the Chinese call it, is imported. It has seemed to me, from my observations and experience at the hospital, where my work has been restricted to, that this rather new theory in regard to the use of polished rice has a causation, or at least is a pre-eminent factor in the etiology of beriberi. My experience has been largely confined to the treatment of cases generally considered residual paralysis. We have cases shipped back to South China from the Philippines and other southern points that are typical cases of residual paralysis following an acute attack of beriberi. I have been very much interested in the facts given by Dr. Creel in this paper, as well as by Dr. Swan's paper. It occurs to me I might give you the consensus of opinion taken in this connection by the far eastern association of tropical medicine. A meeting was held in Hong Kong in February last, just before I left. Among those taking a leading part in the discussion was the late Dr. Paul C. Freer. He was looked upon as a most careful investigator, and on this occasion he took a prominent part. He was one of those who opposed the more radical action and stood hard and fast and did more than anyone else to carry the action finally taken. To make the matter clear, I may say action taken in 1910 by the far eastern association was that in the opinion of this association sufficient evidence has now been produced in support of the view that beriberi is associated with the continuous consumption of white rice as a staple article of diet, and the association desires to bring this to the notice of the various governments. A special committee reported that it was the opinion of the association, in 1910, that investigators in Japan, China, India, the Netherlands, Indian Strait Settlements

and Federated Malay States, have confirmed the opinion that beriberi is associated with the continuous consumption of white or unpolished rice as a staple article of diet. Therefore the association again desired to bring this to the attention of the various governments, and to recommend international action. This created a good deal of discussion. It was finally changed to read as follows: That the results of the work submitted to this meeting of the Far Eastern Association of Tropical Medicine, have been to confirm the accuracy of the resolution adopted in 1910, and it is resolved to adopt as a standard that a harmless rice shall contain not less than .4% of phosphorous pentoxide. That uniformity of legislation appears impracticable, and any action taken should be based on work done and above standard of phosphorous-content.

It is suggested that legislation be directed to taxation of polished rice or to dealers in polished rice. Discussion hinged on whether or not a body composed of medical men could take such action. This gathering represented about the largest number of medical men ever brought together in South China.

We feel there is very little question now as to the causation of beriberi. The question is whether it is practicable or possible to overcome the difficulties which would arise in recommending laws or taxation, or the adoption of such measures by the different Governments which would control the product of this polished rice. It would seem that with my residence for twenty-seven years in South China that I should know more than I do on this subject; but as I said, we are just without the zone. Further south and to the southeast there are large quantities of polished rice used.

That outbreak of beriberi in 1907 followed a year when crops had been very poor and large quantities of rice imported.

Another factor which I think has entered into the situation there is that where military troops are gathered together in large numbers, the importation of American flour and a large increase in the use of bread replacing rice as an article of diet I believe has an influence in warding off this dread disease. It is a terrible scourge wherever it appears. I may say that years ago we were very careful in handling these cases of beriberi. We supposed then that it was contagious. In recent years, and owing to more careful investigations, we have not isolated these cases and we have never seen any indication of contagion.

My only excuse for not giving more information is that in a

province with 38,000,000 population, there are some ten or twelve foreign physicians, and they have to meet an ever-increasing call on the part of the Chinese for foreign medical aid. It has not been possible for us to go into these subjects in detail and make careful scientific investigations as we would like to.

By Dr. W. H. Jeffreys, of Shanghai, China.—It is hard to accept the polished rice theory because of the fact that it does appear apparently epidemically. I had a pet theory which I had to dispose of by accepting another one. I must confess I am entirely converted now and persuaded that the epidemisity is due to the fact of the use of certain brands of rice. Shanghai and Hong Kong are the places where beriberi is most pronounced in China. In St. Luke's Hospital we have paid a very high price for rice and have had a great deal of beriberi and merely due now, I think, to the fact that they were fed on polished rice for so long. Before the theory was established, we used to add dried beans to the diet as a regular thing, and that kept away beriberi more or less. I think the reason is self-evident. With the removal of the beans and a diet of white rice, beriberi used to break out almost like an epidemic in the ward. I confess I am entirely converted to the rice theory.

Dr. Judson Deland, of Philadelphia.—I think the Society should be congratulated on this symposium. The paper of Dr. Swan was very interesting because he gave us a bird's eye view of the various theories that have been held regarding this disease. I think ten years ago none of us accepted the actual cause of this disease, but even then the relation of beriberi to rice was referred to. I think the majority then considered it of bacterial origin. I well remember in talking with Prof. ———— of Tokio that he rather thought certain epidemics followed the upturning of earth, and he thought it was in some way connected with freshly upturned earth. This was another theory. I think with Dr. Wilbur we want to be very careful regarding diagnosis from the standpoint of etiology. At the same time the epidemic phase I do not think is to be strongly considered in the face of the evidence before us. I think the polished rice theory seems to be conclusive. Recent experiments show undoubtedly that animals fed on polished rice lose weight and become paralyzed and eventually die. If unpolished rice and other articles of diet are added, this is prevented. It is also found the addition of other articles of diet, such as greens, improved the health of the patients.

I recall a number of cases of beriberi occurring at the Pennsylvania quarantine station on the Delaware. I carefully studied these cases and found quite a number suffering simultaneously from malaria.

I think a number of us thought for some time that those cases reported by Dr. J. J. Putnam of Boston were possibly examples of peripheral poisoning rather than beriberi. One of the most interesting things is the demonstration that when you remove from rice certain substances usually connected therewith, the patient shows symptoms of polyneuritis. When you add these elements to the rice, the patient recovers from the symptoms. It seems to be connected in some way with metabolism—an interference with normal metabolism because of a lack of certain substances. Exactly in what way this is brought about is not yet known. I believe we have before us an entirely new problem. If in beriberi we have an example of an individual whose food supply depends entirely upon carbohydrates contained in rice, and from it you subtract phosphorus, in consequence of which certain unknown changes take place in his body by which we have polyneuritis, we have a condition closely approaching another which brings about neuritis—namely, inanition. I think we should go on record with the rest of the world.

I think the observations on the fowl are extremely interesting, and look forward with interest to Dr. Wellman's observations and more particularly his deductions regarding the influence upon fowl of certain prescribed substances—for instance a pure starch diet, or a pure cane sugar diet, bringing about changes in the peripheral nerves. These are the most important points of all. I venture to suggest that perhaps during some other meeting it might be wise for this society to contemplate legislation looking forward to some plan by which this disease might be averted. In the United States we have little to do with it except by importation. It seems to me that rice which has less than .4 per cent of pentoxid should be looked upon as a prejudice to health, and that those disposing of such rice should be dealt with accordingly.

By Dr. Henry J. Nichols, Washington, D. C.—Dr. Wellman's experiments brought out one interesting point about this same phenomenon, that this condition can be produced by feeding of corn starch or molasses or cane sugar. I think in this connection the work of Chamberlain and Vedder should be empha-

sized. They found they could produce the same paralysis simply by starving the fowls. In some cases the hens would not eat polished rice but would die of starvation, and before dying would show symptoms of paralysis. The incubation period of these symptoms in the chicken is much shorter than in man. Man will die of starvation before these symptoms are developed. I think possibly this explains Dr. Wellman's results. Either on a diet of polished rice, or no diet at all, you have this same lack of phosphorous, or whatever it is. Cane sugar, or a thousand other things, might give the same results. In regard to Dr. Wilbur's suggestion as to the infectious theory, I have no sympathy with that any more. It seems to me beriberi, at any rate as we have it in the east, is established as fully in connection with polished rice as scurvy is with the lack of fresh vegetables. I think we are only adding to the problem to keep harping on the infectious theory. I speak rather warmly because I unfortunately, like Dr. Jeffreys, was on the other side for some time. I well remember in 1907 Dr. Frazier came up from the Malay Peninsula to get some ideas on beriberi. One or two of the officers urged that we take up this rice theory and we stood out against it. Acting on Dr. Brydon's suggestion, Dr. Frazier worked it out and it was confirmed in different parts of the world. Most conclusive was the practical test. Results are what talk. We cannot get away from those results. I think we have no more right to talk about the infectious theory of beriberi.

By Dr. R. H. Creel, of Ellis Island.—It seems to me some reference might be made to the work as early as 1896 disposing of any theory other than polished rice. Following the lines of Eckman, from 1886 to 1896, a survey was made of all the Java possessions, containing a quarter of a million people. Among 90,000 persons fed entirely on red rice—no white rice—there were only nine cases of beriberi—one to every 10,000; whereas, in those persons fed on white rice there were 280 per 10,000. Observations were carried out covering a period of fifteen months, and excluded all other conditions affecting beriberi. It seems to me this is most conclusive.

By Dr. Judson Deland, of Philadelphia.—Some note, I think, should be made regarding the point made by Dr. Wellman, regarding the connection with the etiological factor in leprosy. Results show that a bacillus has been separated which he looks upon as perhaps being the etiological factor in lep-

ent to the opinion that this polyneuritis gallinarium is likely an able and extraordinary step in advance. We are all acquainted with the remarkable work of his co-worker, Dr. Duval. Therefore any statement that this man makes is of interest to those who are working along this line.

Dr. Swan of Rochester.—I might say that to me the disease is purely academic and literary. I am sorry I was not acquainted with the work of Dr. Creel, as just mentioned, so I could have incorporated it in my original paper. I should like to say that in regard to the infectious nature of the disease, from my reading I have never been convinced of it.

Many statements have been published in which beriberi and pellagra are said to be similar, but it seems to me more like scurvy.

Dr. Wellman.—In view of one or two gentlemen having referred to the extensive researches of Dr. Bass and myself, I want again to emphasize the fact that my only argument was to show that Louisiana rice, the staple food of the south, would reproduce the results obtained by other workers in different parts of the world. We are perfectly cognizant of the researches antedating ours, and have no idea of doing any more than confirmation and extension of the work of those preceding us. I think the fact that we have been able to reproduce a perfectly identical condition by feeding our fowls on cane sugar and starch, is possibly more significant than simply being a starvation, although I am strongly inclined at present to the opinion that this polyneuritis gallinarum is likely an inanition condition, and I am not entirely convinced that it has anything to do with beriberi. The whole condition of beriberi in my mind is rather more unsettled than it was when we began these experiments. While it is true that the most of the evidence that has been gotten together is in favor of the rice theory, still there are various unexplained facts which, while I would not go on record as saying I am against the polished rice doctrine, still I would disagree with Dr. Nichols when he says we have no right to consider any other theory. Some facts should really be explained. For instance, I was asked to investigate an epidemic of beriberi in the islands of the gulf of Guam where there were 30,000 cases. In some cases where no rice was eaten, I found a disease clinically undistinguishable from beriberi. In other cases where what appeared to be polished rice was eaten, beriberi was very much less than it was in the vicinity just referred to. Again, I think some of the

anomalies of geographical seasonable distribution are not fully explained. The attacking of young, strong adults, too, is a question which is not clear in my mind. I for one am not willing to go on record entirely in this matter until a little more investigation has gone on.

So far as the phosphorous content of rice is concerned, there are also objections to that. For instance, the so-called infantile beriberi—if it be beriberi—if one thinks physiologically one would expect those children to take the phosphorous out of their bones. The result would be very easy to see in the children.

As one speaker has said, we have a clue, a very important one; still I think there is a great deal of work to be done on this question of beriberi even yet.

I was interested in the work with this Louisiana rice with Dr. Bass, because on the authority of Dr. Eustis and others who have made a careful study of the negroes, the diet is so largely rice that I believe even more rice is eaten than is stated to be the fact by Stanton and Frazier in their report.

Regarding the matter of leprosy, I will say we are as much on the fence regarding leprosy at the present time as we were before. The Clegg bacillus does not look as good to us as it did, and we have proven that the leprous-like lesions which Duval produced in monkeys are produced by a mixed culture containing this non-chromogenic bacillus which I have shown you today. We find that the experimental work which has been done to produce lesions, has been done with cultures containing the Clegg bacillus and this new bacillus of ours (if we may call it so). We are now preparing a detailed report in which we hope to clear up the relation of these two strains—not only their relation to each other—but to other acid fast bacilli. By cross reactions done carefully and in great detail we believe that the non-chromogenic slow-grower and the Clegg chromogenic rapid-grower, are very distinct from each other. We believe the Clegg chromogenic rapid-grower is also distinct from other acid-fast bacilli. The non-chromogenic, on the other hand, has no relation to the acid-fast chromogenic. For nine months we have tried in every way to coax it onto their media. Isolating on this placenta medium it will grow luxuriantly, but if you dilute the placenta agar with nutrient agar, it stops growing. In other words, unless you get the proteid molecule broken down so that you get the trypsin products of digestion, this slow-growing bacillus will not grow

on agar media. We will not say that the Clegg bacillus has nothing to do with leprosy. We will not say that the non-chromogenic slow-growing bacillus is the only factor in leprosy. We hope to complete investigations and at the next meeting to give you something more definite.

Dr. Creel.—I might make a further remark about the rice law. If we are going to recognize polished rice as causing beriberi, it is more logical to enact a rice law than it is to tax the rice.

Flukes in China.

Mr. W. H. Jeffreys.—By the courtesy of Dr. Jackson, who is next in order, I am going to present some specimens of flukes from China. The four that I have are very typical of China, and are those about which there has been more or less discussion raised. The first one is a common fluke in China, Formosa, the Philippines and Malasia. There are supposed to be two varieties—the endemicus and another. This is the endemicus, and is supposed to be the least harmful of the two. The patient from which this was taken was a typical case, and had some 545 specimens in the gall-bladder and bile ducts. Its particular characteristics are length and amount of segmentation. The next one is a common fluke in China and India and Formosa. This is well known and has been thoroughly described by various writers.

Sodium Citrate in the Treatment of Pneumonia.*

By DR. W. H. WEAVER, Ocean Springs, Miss.

It is well known that there are many cases of lobar pneumonia, especially in children, giving typical pneumonic signs and symptoms, but running such a short course as to cast doubt on the diagnosis. This occurs, too, under widely differing lines of treatment. In the adult it becomes a more serious disease, while in advanced age it is almost certainly fatal, and has been termed the natural end of the old man. In the debilitated and in drunkards the chances are also greatly against recovery.

The disease is observed in such a variety of combinations with other diseases, and presenting such variable characteristics, that no single method of treatment based on the known pathology of the

*Read before the Jackson County, Mississippi, Medical Association.

disease has been found that is successful. Many methods of treatment have been proposed, but up to the present time neither our knowledge of the pathology nor our modern methods of bacteriological investigation has pointed the way out of the wilderness. However, through improvements in our general methods of treatment, the mortality of pneumonia has been reduced materially in the last fifty years. Still this disease progresses from one stage to the next, and through the crisis or lysis to recovery or death in the same old way it did 4,000 years ago. Hence, we may be pardoned if we venture to introduce still another method.

In the stage of engorgement the infected lobe may be considered to be in a waterlogged condition, as a result of the bacterial irritation. Blood of a high degree of coagulability is dammed up in the lung; this is the developmental stage, and lasts about twenty-four hours. In this stage, exudation and coagulation have begun, and when about completed we have the second stage. The second stage, that of red hepatization, is due to the coagulation of blood in the previously infected and engorged lobe. This coagulum is composed of fibrin with red blood cells, leucocytes and epithelial cells. This stage continues for three to seven days, or longer, in delayed resolution. During the third stage, that of gray hepatization, the lung clears up, the exudate being mostly absorbed by the phagocytic actions of millions of leucocytes, or expectorated.

In broncho-pneumonia of children we have the same pathological processes, including the three stages of engorgement, red hepatization and gray hepatization; but while some lobules, or parts of lobules, are in the first stage, others have passed into the second and third stages. The exudate is less fibrinous and more cellular, muco-puss representing the third stage. The similarity to lobar pneumonia, as to pathology, would lead us to believe that the same method of treatment might be applicable; and this we have found to be true. Broncho-pneumonia is attended with such alarming fatality, especially in institutions, where it is 40 to 50 per cent, that it merits serious attention.

It will be admitted that, from the character of the pathological processes constituting the disease, if anything is to be done to abort pneumonia, it must be done during the second stage. We will then escape the dangers and anxieties of continued high fever, circulatory failure and the crisis.

It may also be said that if pneumonia ends by crisis our treat-

ment has not been more than expectant in its results, and the case has simply been guided safely through, and successful to that extent. A new treatment which will not bring about with reasonable certainty an immediate and rapid lysis is no improvement on the old.

We have in pneumonia the following important conditions resulting from the pneumococcus or streptococcus infection: 1st—obstruction to the circulation of blood through the hepatized lobe or lobules; 2nd, a somewhat high degree of viscosity and coagulability of the blood; 3rd, a diminished alkalinity of the blood due to the rapid disappearance of sodium chlorid and other salts.

The obstructed circulation is partly due to the exudate about the arterioles and capillaries compressing them and reducing their lumen, and partly to the above mentioned viscosity of the blood—the blood being "too thick" to pass through the stiffened and smaller than normal blood vessels. As a result the leucocytes and antitoxins with which the blood is charged do not gain access to the diseased tissues. This condition persists until the exudate or coagulum in the hepatized area undergoes some change of its own through contraction of the fibrin, or solution, or digestion by the alexin in the blood serum. When this occurs the circulation of the blood is rapidly restored, and the leucocytes and antitoxins as rapidly destroy and carry away the products of the primary inflammation.—the obstruction. At the beginning of this change, called resolution, there is an exacerbation of all the symptoms.

From the third observation it would follow that our treatment should aim to restore the alkalinity of the blood by the plentiful supply of the alkaline salts that are applicable, and necessary to its normal functions, and which will reduce its viscosity and coagulability and at the same time increase its antitoxic power as it flows more freely through the infected area.

The degree of viscosity of the blood in pneumonia is a matter of the greatest importance. It constitutes what may be termed internal resistance to the blood current in contradistinction to external resistence due to stiffness of, and pressure on the blood vessels by the solid exudate surrounding them. Viscosity is largely responsible for the slow and more or less stagnant current of blood through those vessels, while the exudate may completely dam off a portion of the tissue.

Russel-Burton-Optiz *(Jour. Experimental Med.,* 1906, viii, 59),

and others have shown that the viscosity of human blood is about 5.1 times that of water. He has also demonstrated that the infusion of large quantities of normal saline solution and of distilled water reduce viscosity. Also "that the viscosity of the blood reacts very sharply to heat and cold." He made experiments on dogs while they were submerged in water at 43°C. and in water at 23°C. and showed that warm water baths decreased viscosity very considerably, while cold had the opposite effect.

Other tests were made with dogs placed in a compartment through which a constant stream of dry, hot air was passed. These experiments proved conclusively that hot air baths rendered the blood more viscous. This result, he says, may well be accounted for by the loss of water which the body must necessarily suffer.

Using different methods from Burton-Optiz, Lommel has repeated the experiments on human beings and has obtained identical results. Hence, it is a question again how far our efforts to reduce fever in pneumonia should be carried. Blood at a low temperature is of less fluidity, and the ice bag may increase the internal resistance to the blood current in the hepatized area.

Burton-Opitz concludes "that, other factors remaining constant, the magnitude of the flow must become greater the less the viscous resistance. The reverse relationship must also exist."

While in normal tissues vaso-motor control may allow blood of greater viscosity to flow without appreciable increase of cardiac energy, in inflammatory and exudative conditions, such as we have in the hepatized lobe or lobule, the vaso-motor system is cut out, and the thickened blood must rather percolate through the obstruction, or require a greatly increased blood pressure if there is any circulation at all. We have all witnessed the evidences of cardiac embarrassment in these cases. Blood of greater fluidity would pass more freely and with much less cost of cardiac energy.

While viscosity and coagulability are not one and the same thing, they are closely related. Viscosity, being due to internal or molecular friction, when carried to its highest point is coagulation, although coagulation is an additional, fermentation process. Again, means that reduce viscosity also delay coagulation. Both conditions are probably dependent in part upon the action of the calcium salts in the serum, which action is inhibited by the alkaline citrates.

On a healthy adult weighing 130 pounds an actual test showed that coagulation was greatly delayed and fluidity as markedly in-

creased by the administration of 15 grs. of sodium citrate given every three hours. The coagulation time during the previous day was two and a half minutes. The morning of the test the first dose was given at 9 o'clock and continued every three hours. At 9 o'clock the time was four minutes, at 5 p. m. the time was six minutes, at 9 p. m. the time was seven minutes, and at noon the following day it was three minutes. It was noted also that the blood as it was placed on the slide for observation was increasingly fluid—flowing more freely over the slide as the coagulation time increased.

Certain other alkaline salts have a similar action. Those of the vegetable acids are converted into carbonates or acid carbonates in the blood, unless the dosage is large, when some of the original salt may be carried over into the blood. Sodium citrate is very active in that respect, and was chosen on account of its generally harmless character.

While the alkaline salts are necessary to maintain a normal fluidity of the blood in health, in acute febrile disease these salts are rapidly eliminated at the rate of about half an ounce daily. Now these salts are not replaced from the restricted diet upon which most fever patients place themselves by loss of appetite, or other reasons.

The degree of alkalinity of the blood expressed in terms of sodium hydrate is equivalent to from 182. to 275. milligrams to the 100 c. c. of blood: so that a wide variation is not incompatible with health.

That at least a medium degree of alkalinity of the blood is necessary in order that it may exert its normal antitoxic power is maintained by Löwy and Richter *(Virchow's Archives,* Bd., cxlv, S49, 1896), and others. They have shown that the "leucocytes increase in numbers in proportion as the alkalinity of the blood becomes more marked." A number of experimenters have also observed that immunity to infection increased with the increased alkalinity of the blood, and diminished when that alkalinity was reduced. Metchnikoff *(L'Immunitie dans les mal. Infections,* p. 93, 1901), states that alexin (the active principle of which is a trypsin-like ferment) acts only in the presence of alkaline salts, and when relieved of the salts by dialysis the serum loses its hemolytic power, but is instantly restored on the addition of the salts. Hence with increased alkalinity of the blood must come increased antitoxic power, an active leucocytosis, and at the same time insure its great-

er fluidity; thus bringing about a true and active hyperemia. This active hyperemia is the most important single factor in the cure of all inflammatory and exudative conditions.

In the hyperemia of Bier, produced by the elastic bandage or suction glasses, called stauungs-hyperemia, or obstructive hyperemia, an increased amount of blood is retained in the tissues, circulating with less rapidity than normal, still in such a large quantity as to allow of active leucocytosis sufficient to carry away the inflammatory products, in conditions where the treatment is applicable. This is a practical demonstration of the modern theory of inflammation—that it is nature's method of defense against microbic invasion. Hyperemia by increased fluidity of the blood is more generally applicable to some of the more serious internal inflammatory diseases.

From the foregoing we should conclude that: 1st, sodium chlorid and possibly some other alkaline salts should be supplied to the system in about the normal daily amount of 240 grs. with the diet or otherwise if necessary; 2nd, that sodium citrate be given in sufficient dosage to render the blood noncoagulable and of the greatest possible fluidity.

Sodium citrate is a salt of feeble alkalinity and may be given in sufficiently large doses to produce its effect without the least danger of harm, or even discomfort to the patient. Its taste is not disagreeable, nor does it disturb the gastric functions or appetite, and may be given in doses of one drachm every two hours if that much were considered necessary. It may be given with a little citric acid or lemonade in small quantities. The dose for an adult we have found to be from 30 to 40 grains every two hours. For children the dose should be calculated from the larger amount.

Active catharsis should be established at the beginning of the treatment, as it will stimulate the protective and glandular mechanisms.

If the fever is found to be very high and other symptoms alarming, bathing may be instituted until the temperature falls under the influence of the sodium citrate. In most cases, especially in children, the temperature, pulse and respiration will fall to normal inside of 24 hours, very much resembling a crisis. The clearing up process in the lung is completed a little later, and until it is completed the citrate must be continued at the same dosage. By this method of treatment the lung seems to escape the third stage, the exudate being absorbed without change.

If there is no improvement in 6 to 12 hours the dose may be increased by 5 or 10 grs. or given every two hours instead of every three hours. In adults improvement often does not begin until the third day.

The cases reported at this time include what few have come under my care and those of some of my friends who have been kind enough to aid in the demonstration of the treatment. They include Dr. A. C. King, New Orleans, La.; Dr. Allen Salter, Lena, Ill.; Dr. K. F. Snyder, Freeport, Ill.

Case 1.—A. C., age 9, became ill January 23, 1910. I was called to see her the next day at 10 a. m. Temperature, 103.5; pulse, 140; respiration, 45. Constant pain in left thorax, with distressing cough, and restless. Examination gave dullness on percussion; feeble breathing, with friction sound over the left lower lobe. Adhesive strapping relieved the pleuritic pain. Sodium citrate, 10 grains every three hours, was ordered.

January 25, at my morning call, I found the patient apparently recovered. Temperature, 98½; pulse, 100; respiration, 25; having slept most of the night with no pain. A few subcrepitant rales could be heard. The dose of sodium citrate was reduced one-half.

January 26, A. M.: Temperature, 102, with most of the symptoms returned. Ordered the return to 10 grains every three hours.

January 27: Temperature normal, and no signs or symptoms of the pneumonia remaining, save a slight cough, expectoration and a few moist rales.

January 28: Allowed to get up.

January 29: Patient discharged, having been severely ill only one day.

Case 2.—J. M., age 14, has had a "cold for three weeks, with some fever."

March 23, 3 P. M.: Temperature, 103½; pulse, 120; respiration, 36. Complaining of pain in the right side. Rusty expectoration, marked dull percussion note, with bronchial breathing and bronchophony over the right lower lobe. Diplococcus pneumoniæ found.

Ordered sodium citrate, grains x, every two hours.

8 P. M.: Temperature, 101½; pulse, 120; respiration, 36.

March 24, A. M.: Temperature, 101½; pulse, 120; respiration, 36. At noon: Temperature, 103, and the dose increased to 20 grains. 6 P. M.: Temperature, 102½; pulse, 108; respiration, 30.

March 25, A. M.: Temperature, 100.8; pulse, 94; respiration 24; and rested well last night. P. M.: Temperature, 102; pulse, 96; respiration, 24. Few moist rales.

March 26, A. M.: Temperature, 100; pulse, 90; respiration, 24. Slept all night. P. M.: Temperature, 102; pulse 96; respiration, 24. Dose increased to 25 grains.

March 27, A. M.: Temperature, 99; pulse, 88; respiration, 22. P. M.: Temperature, 98; pulse, 66; respiration, 20.

March 28: Temperature, 98; pulse, 60; respiration, 18.

March 29: Discharged, recovered.

Diagnosis: Lobar pneumonia, left upper lobe.

Case 3.—A. D. A., age 4½, taken ill on August 15 with fever and cough.

August 16, 10 A. M.: Pulse, 148; temperature, 103; respiration, 48. No expectoration. Examination showed dullness and bronchial breathing and bronchial voice over the left upper lobe. Ordered sodium citrate, 10 grains every two hours.

August 17: Temperature, 100; pulse, 120; respiration, 36. Few moist rales.

August 18: Temperature, 98½; pulse, 100; respiration, 20.
August 19: Discharged, recovered.
Diagnosis: Lobar pneumonia, left uppe rlobe.

CASE 4.—J. H., one year. September 11, began coughing, and feverish.
September 12: Breathing rapidly all day, with prostration. Called.
September 13. Temperature, 103; pulse, 104; respiration, 56. Find moist rales over both lungs, most in the right. Ordered sodium citrate, five grains every two hours.
September 14: Pulse, respiration and temperature normal; discharged.
Diagnosis: Broncho-pneumonia.

CASE 5.—E. W., age, 8 years; weight, 60 pounds. April 4, 1911: Found the patient suffering from acute otitis media catarrhalis. Temperature, 101; pulse, 95; respiration, 30. The warm ear douche given three times daily, and warm external applications until the inflammation had subsided. Adenoids are present; slight cough.

April 5, A. M.: Temperature, 102½; pulse, 110; respiration, 44. No complaint of pain, no expectoration. Pneumonia suspected, but no evidence found on examination of chest. P. M.: Temperature, 103; pulse, 120; respiration, 48. Pain in left lower axillary region, over the site of a friction murmur. In the infra-scapular space there were loud voice sounds, but no other evidences. Strapping was applied, and the ice-bag placed to the side. Calomel, one-quarter grain every hour for four doses.

April 6, A. M.: Temperature, 104½; pulse, 120; respiration, 52. Examination showed involvement of the whole of the left lower lobe, and patient somewhat delirious. Slight bloody expectoration. Continued the ice-bag and cold sponging. A dose of Husband's magnesia, carbonate of ammonia, grain with sodium citrate 20 grains, every two hours. P. M.: Temperature, 104; pulse, 120; respiration, 48. Strychnin-sulphate, grain 1/100, every four hours. Continue sodium citrate mixture through the night.

April 7, A. M.: Temperature, 103½; pulse, 120; respiration, 48. P. M.: Temperature, 103; pulse, 120; respiration, 48.

April 8, A. M.: Temperature, 102½; pulse, 120; respiration, 44. P. M.: Temperature, 101½; pulse, 110; respiration, 36. Rale redux heard over area of consolidation.

April 9, A. M.: Temperature, 100½; pulse, 100; respiration, 36. Noon: Temperature, 98½; pulse, 96; respiration, 36. Ordered medicine given every three hours. 10 P. M.: Temperature, 103½; pulse, 108; respiration, 36. Medicine ordered every two hours again.

April 10, A. M.: Temperature, 98; pulse, 86; respiration, 30. P. M.: Temperature, 101; pulse, 96; respiration, 24. Area of tubular breathing reduced to about two inches in diameter.

April 11: Temperature and pulse remained normal and medicine discontinued, as there were no signs of the trouble remaining.

April 12: Feels well and wants to get up.

April 13: Discharged.

Delirium of a muttering and, at times, talkative character, continued until the temperature remained normal. The period of severe illness was only two days—April 6 and 7.

REPORTED BY DR. ALLEN SALTER, Lena, Illinois.

CASE 6.—Girl, aged 7. Upon my first visit to this child, found her with a temperature of 104.2°; respiration, 48; pinched, in misery from pain and dyspnoea; hepatization of both the middle and lower right lobes present. Initiated supportive measures only, revisiting her thirty hours later, finding temperature 105.4°; respiration, 56. Pain over left side. Examination revealed an extension to lower left lobe; the right apparently as on previous visit. With this second visit commenced the administration of sodium citrate, ten grains every three hours, the following day finding

patient with temperature of 102°, respiration 36, with rales moist and expectoration of characteristic type. Two days later found patient with normal temperature and respiration, and in every way comfortable.

Case 7.—Blacksmith, aged 76. This patient, a hard-working man all his life, and abstainer, had been confined to house for several months by reason of chronic interstitial nephritis, sequela to valvular disease of heart, resulting from an attack of inflammatotry rheumatism more than fifty years before. He had been fairly comfortable, and I had not seen him for several weeks, when I received an urgent telephone call to come at once, stating that "father was having a chill and was dying." An hour later I found him in extreme delirium; respiration irregular and 60, temperature 104 (axilla), cough constant, expectoration slight, but rusty and blood-stained. Symptoms pointed to dissolution before the following morning, there being complete hepatization of lower lobe of right lung, a a classical lobar pneumonia, which, in conjunction with his previous physical condition, looked desperate.

Administered 30 grains sodium citrate every three hours, continuing the supportive treatment he had been following, and, to my surprise, found him upon the following day with temperature of 101, fully conscious, and breathing easily. A week later he was apparently in same condition as before the pneumatic attack. He died suddenly two months later by reason of the heart lesion.

I was led to use this remedy through the written reqest of my old friend, Dr. W. H. Weaver, and it seeems to me, even after this limited experience, that the remedy deserves recognition.

Dr. K. F. Snyder, Freeport, Ill.: The following case reports are sent in at the request of my friend, Dr. Allen Salter, of Lena, Ill. I have used this method in two cases with what I consider splendid results:

Case 8.—Chas. S., aged 5. When first seen by me this child had a temperature of 106, pulse 160, and in extreme shock; white and pinched facial expression, and desperately ill. The condition of the child being so serious, I felt justified in using extreme measures, and administered 8 grains of sodium citrate every two hours for twelve hours, when I saw the child again.

The dry, harsh bronchial breathing that characterized the atttack when first seen had given place to soft, blowing sounds. Profuse expectoration. Temperature had come to 104, and pulse 140. In the next twelve hours no practical improvement was noticed. During the second twelve hours I reduced the time of administration of the citrate to 8 grains every three hours. At the beginning of the second day the temperature had dropped to 102, the condition of the pulse was a great deal better, with a moderate amount of expectoration, somewhat tinged with dark blood, and the general condition was very much improved. On the third day, temperature had come to 99, moderate expectoration, and the patient was practically out of danger. The next two days the improvement was continued, and I discontinued the use of the remedy, after using it for three days. I cannot help but feel that in this case the use of the citrate had a pronounced effect, as I cannot remember having seen the dry, harsh, unproductive cough of the early serious pneumonia so quickly replaced by easy breathing and a general restoration of more healthy functions.

Case 9.—Female, Mrs. H., aged 50. When first seen by me temperature was 104; had just suffered from reaction of chill; pulse 130, and in great despnoeic distress.

I found a pneumonia in upper right lobe, and considerable expectoration, which was somewhat streaked with blood. This patient had quite

a number of mental symptoms from the first, and, though not desperately ill, yet her general condition at her age made me feel somewhat anxious as to the outcome. This patient was given no other medication, save attention to the bowels in the way of calomel and salines, and 15 grains of citrate for the first two days. Her temperature ran to 104 and 104½ the first thirty-six hours, when it went to 102, pulse 120, remaining in that neighborhood for two days longer, when it went down by lysis to 99 on the sixth day, and she made a first-class recovery, with no sequelæ.

In the next four days she gave no sign of intoxication or circulatory embarrassment, and her mental condition cleared up in a few days.

In the two cases that have been under my care I must say that I have felt there was direct benefit derived in this form of medication, and I certainly propose to continue its use until I see reason for changing.

REPORTED BY DR. A. C. KING, of Algiers, La.

CASE 10.—Mrs. T. Diagnosis, acute lobar pneumonia, involving the middle and lower right lobes.

Patient complained of having had a cold for several days previous to calling me on February 3, at 7 p. m. She was suffering considerable pain over the right side. Temperature, 103; pulse, 114; respiration, 34. Gave codein, one-quarter grain; asperin, 4 grains, every three hours. Patient rested but litttle during the night. Bowels moved by laxative and enema.

February 4, 7:15 A. M.: Temperature, 100 3/5; pulse, 108; respiration, 28. Mustard was ordered over the right lung, and sodium citrate in doses of 35 grains in simple elixir and water every three hours. Sponge baths, alcohol rubs and adhesive strapping to the right side. Patient very uncomfortable and restless. 7:30 P. M.: Temperature, 103 3/5; pulse, 106; respriation, 32.

February 5, 7 A. M.: Temperature, 101 2/5; pulse, 110; respiration, 36. 7 P. M.: Temperature, 103 1/5; pulse, 106; respiration, 32.

February 6, 6 A M.: Temperature, 101 2/5. 7:30 P. M.: Temperature, 104; pulse, 100; respiration, 42. Patient had a bad day. Sodium citrate now given every two and one-half hours.

February 7, 7:30 A. M.: Temperature, 102; pulse, 100; respiration, 38. 6 P. M.: Temperature, 103 2/5; pulse, 92; respiration, 34. Resting and nourishing better.

February 8, 5:30 A. M.: Temperature, 101; pulse, 96; respiration, 34. Rested last night. 6:30 P. M.: Temperature, 103; pulse, 92; respiration 38.

February 9, 7 A. M.: Temperature, 99; pulse, 88; respiration, 34. 8 P. M.: Temperature, 97 4/5; pulse, 76; respiration, 30. Patient now began a rapid convalescence, getting up on the eleventh day.

I watched the lung throughout with a great deal of interest, noting its condition at each visit, and was particularly pleased that recovery took place by lysis—so fatal in adults—this patient being 56 years of age. Recovery was rapid, once it started, and the patient, after the first two or three days, felt more comfortable, it seemed to me, than has been my experience before.

I am satisfied that sodium citrate saved this woman several days of illness, if nothing more; also that it is harmless, and could have been given in much larger doses.

Conclusions:—1st. Since most cases of pneumonia are seen during the first three days of the illness, if treatment is immediately instituted by full doses of sodium citrate, an immediate and rapid lysis should be obtained.

2nd. If the pulse and temperature remain stationary for from 12 to 24 hours the dose of sodium citrate may be increased until

we have a falling pulse and temperature, when the dose may be considered correct for that patient. This dosage should be continued night and day until the lung has entirely cleared up. In some cases lysis may be delayed and slower than in others, but so long as we get any improvement in conditions, or stay in the progress of the disease for the first 24 to 48 hours, we may confidently expect that the third day will inaugurate a more or less rapid lysis. The character of the lysis depending probably upon the permeability of the hepatized lung tissue, as well as the natural plus the temporarily increased defensive elements in the blood.

3rd. Fortunately broncho-pneumonia is as amenable to the treatment as is lobar pneumonia.

4th. Other means, such as strapping for pleurisy, and bathing for high temperature are not to be neglected if symptoms call for them.

Discussion—Dr. H. B. Powell, Ocean Springs, Miss.: My attention was called to this line of treatment by Dr. Weaver, in October of last year, when I was attending a child of four months for lobar pneumonia. The patient had developed alarming symptoms, and I decided to give sodium citrate in 2 gr. doses every two hours. Recovery was so rapid that in 48 hours all danger had passed, and that without a crisis. It is my belief that considering the seriousness of the disease in infant, the result was most gratifying.

Dr. J. N. Rape, Moss Point, Miss.: Sodium citrate is neither an antiseptic nor an antitoxin, and we must look for some other explanation if these results are facts to be relied upon.

Dr. Weaver: In reply to the observation of Dr. Rape, I would say that the defensive elements are already in the blood, but cannot exert their action on the hepatized lobe until the blood is rendered less viscuous.

It is not that these cases have recovered, but that they recovered by an induced lysis, and that the perils of a nerve-racking crisis, if nothing more, were escaped—thus depriving pneumonia of its principal terror to the patient, the relatives, and no less to the physician.

ILLUSTRATING DR. BROWN'S ARTICLE.

Congenital Syphilis*

By F. TEMPLE BROWN, M. D., New Orleans.

As this evening has been set aside for the presentation of cases and their discussion, I thought these cases might be of interest to some of you.

A disease that affects about 20% of the entire population of the United States, and about 12% of the populations of Berlin and Paris, is surely worth consideration.

As there are a number of interesting cases to be presented here tonight, I have eliminated everything excepting brief history and some local treatment in case one which presents such beautiful results.

CASE 1. Rosie S., colored female aged fourteen months came under my observation May 14, 1912. Family history, father and mother living and apparently healthy, one child living and one still born, unable to obtain any history of lues.

Present condition, about five months after birth parents noticed a pimple on a child's buttock, which gradually grew large with no tendency to heal under home treatment.

On examination a large granulated mass about two inches in diameter presented on right side of rectum and one of smaller dimensions on left side. A Wassermann test was made and found positive. The child was at once put on antisyphilitic treatment. The mass being so large and ugly looking, a week later we extirpated the mass by use of Paguline catery, leaving a clean granulating surface, thereby hastening the local treatment, which consisted of applications of scarlet red ointment. The wound healed inside of two weeks, with no signs of suppuration.

I might say that an examination of the mass for spirochetes was made at time of extirpation of mass, but proved negative, most likely due to the early syphilitic treatment.

CASE 2. John B., colored, three years, came under my observation about one month later with the following history. Father and mother living, apparently healthy, married four years; one child living and one still born; unable to obtain a history of lues of parents.

Present conditions: Child born with a cold in the head, otherwise

* Read before the Orleans Parish Medical Society, at the Clinical Meeting held at the Charity Hospital, New Orleans, July 8, 1912.

healthy. About one month ago, pimple broke out on child's buttock at margin of rectum, which gradually increased in size. On examination a granulated surface was found about the size of a twenty-five cent piece. This case was sent to the pathological department of the Charity Hospital, for a Wassermann test, but as yet I have been unable to locate parent of child. The case was undoubtedly lues.

Case 3. Fred K., colored, male, three years, came under my care July 6, with the following history:

Father and mother living, father had an eruption on body before child was born. Mother says she had a few ulcers on edge of vulva. One child living, one still born. Present conditions started some months ago in the form of small abrasion on buttock. On examination the whole exterior of rectum presents an ulcerated mass, which you will see. This case is now in the ward awaiting a blood report, before anything further in the line of treatment is done.

Gentlemen, I wish to make a few remarks in regard to history taking which is very important in these cases which will help you materially in your diagnosis. If you will notice in each of these cases we get a history of still-born children. I have had mothers tell me they did not know what their trouble was, but they always had still-born babies. This is especially true in the colored race in the first four or five years of their married life.

Society Proceedings.

American Society of Tropical Medicine.

The Eradication of Malaria.

By DR. J. H. WHITE of the P. H. and M. H. S., New Orleans, La.

(An abstract of the address of the President at the ninth annual meeting, Atlantic City, June, 1912.)

Plague, cholera, yellow fever, typhus, smallpox, have all from time to time taken toll of human life, blasted human happiness and wrecked human endeavor, but after all they do but little harm in the aggregate as compared with tuberculosis, typhoid fever, syphilis, gonorrhea and our time-honored enemy malaria.

Every one of these latter is as preventable as the former, but how little do we prevent them. Something has been done, but so little that we can scarcely plume ourselves upon the results attained.

We have made tremendous advances in dealing with the occasional epidemic diseases of the class first named, and there is no legitimate reason for not doing the same or better work in fighting our endemic foes, and especially the one which we are now considering.

Both the old empires of Greece and Rome imported African slaves who, then as now, possessed superior resistance to malaria, and with the inevitable result attained in such cases—absorption.

Within recent times negroes have been transplanted to both Americas and the West India Islands, and the inevitable net result of the superior stamina of that race under malarious conditions in the tropics is in evidence to-day in the complete dominance of the race in many of the low countries and in the gradual recession of the native Indian and the white man.

This is not the case in the malaria free regions in Central and South America. This statement is not made as a scientific demonstration, nor do I wish it construed as evidence of the least ill will toward the negro, but simply as food for thought.

I am not sure that the century or two of negro and negroid life in Tropical America is sufficient time to give results upon which we may base scientific deductions, but I fear that it is, and if so, then it is manifest, that so long as the physical law of survival of the fittest remains a fact, and very much a fact it still is, then must the white man either destroy malaria in all his heritage, or the black man will ultimately possess it through the inexorable working of that law.

There are few if any thinking men of the South who have not been deeply concerned over the degenerate physical status of hundreds of thousands of their compatriots who dwell in malarious lands.

Much degeneration now known to be due to hookworm was once charged up to malaria, but the discovery of Stiles does not wipe the slate, and the magnificent benevolence of Mr. Rockefeller still leaves the real malaria untouched.

Taking the year 1910, the registration area of the United States contained fifty-four millions of people, practically 59 per cent of our total population. In this area the deaths aggregated 805,000

from all causes and 1200 from malaria, which is equal to about 2¼ per hundred thousand for the registration area. This may be reasonably correct as an average, but when one considers that in it Savannah is charged with 89 and Memphis 100, you can see that this estimate is wide of the mark. New Orleans, nearer the truth, is charged with 9.7, but I am sure from my personal knowledge that since the installation of drainage in New Orleans, even this 9.7 is excessive.

I hope to excite enough interest in this subject to sow the seeds of better work all over the country in the way of reporting malarial disease. In other words, I should like to bring about as different a state of affairs from what exists as possible. Many of us know cases in which physicians, through ignorance, will make a diagnosis of malaria and sign a death-certificate giving that as the cause, yet in which the cause is absolutely foreign to this disease and has nothing to do with it. Again, with what is far worse than ignorance, physicians will charge up knowingly even such things as syphilis to malaria; either because they are afraid to wound the sensibilities of the patient or his family, or because the insurance money would not be paid—or any other ignoble cause you wish to name.

You have only to remember the relatively small mortality by percentage of cases as compared with the colossal total in abstract, and then remember that each death represents hundreds of cases and each case some days of lost work to gather a correct idea of the widespread suffering, ultimate physical degeneration, showing itself in posterity, to say nothing of the gross but vastly important money loss involved through loss of labor.

I do not think that the morbidity is overestimated, although the mortality is largely so. We have all seen in this country just what can be seen in the Roman marshes—little sallow, pot-bellied, underdeveloped children, with spleens so large that the outline of them can be seen from the outside, and can be palpated without any trouble. It is evident that this causes physical deterioration, not only in the individual, but also, as a consequence, in the race. We must know that it is important to do away with conditions that sap the vitality of the race in such a fashion as this; and how can these things be avoided?

It is said that the scientist knows *why;* the practical man *how,* and the expert *how and why.*

Thanks to the scientist, we all know now why, and the *how,*

though I fear not many of us can qualify as experts under this specification.

The actual work of eradication of malaria is elemental in its simplicity, but calls for untiring watchfulness and absolute thoroughness.

The essential facts to bear in mind are that the various members of the genus Anopheles all breed in swamp water. that they will travel about 350 yards with the wind, perhaps more, and knowing these facts we can easily accomplish the eradication of the pests in cities and towns, being aided thereto by the steady increase in value of land adjacent to centers of population, making the disuse of such land very costly, and so from an economic standpoint hastening the drainage of nearly all save accidental small pools which can, in most instances. be very easily filled or drained. The only remaining problem, then, in urban communities will be lakes and ponds preserved as things of beauty in parks, and there are two ways to meet these cases. First, by seeing that the borders of all such lakes or ponds are sharply and clearly defined by cement edges and the water kept at one constant level by a fixed outlet, and the second by implanting small fish in the water—such fish as the Jamaica negroes call "Millions," which are so small and become so numerous that they will destroy every trace of eggs or larvæ deposited in their reach, and their size enables them to get into every possible place where ova might be deposited.

In rural districts the task becomes much more difficult, the swampy area being larger as a rule and the available means for fighting the evil less.

Of course, the remedy here is also complete drainage and cultivation. I can recall more than one instance of the thrifty use of land in my native State having made large areas, once malarious to a pronounced degree, entirely mosquito free, and I can unfortunately recall one in my own possession where the admirable work of my father-in-law has been allowed by thriftless negro tenants to go for naught, and where malaria, banished entirely from about 1870 to 1900, is again in evidence to some extent through the abandonment of the cultivation of an area of some two or three acres of creek bottom land.

To my mind, the filling up of our country with inhabitants has accomplished the desired result already in many parts of the Northern and Middle States, practically obliterating malaria without any

interference on the part of physicians; because with population comes an increased value of land, and with that comes the fact that people will not let the land lie idle when it can be put into use at a small cost for drainage. There are still, however, many places where this is not so; and the remedy is first to be applied in a palliative way, by excluding the mosquitos from houses by means of screens, draining small pools of water near at hand, oiling those which cannot be drained, and never forgetting that our gamete-carrying patients must be given quinin as a protection to their own families.

I have seen with my own eyes, since I was a boy, the gradual recession of swamp land before population in my own State and Florida, and the gradual dying out of malaria before the advent of population. The education of the people has also had something to do with this progress in stamping out the disease. It has long been an idea of the common people that malaria did not affect them much in the daytime. They thought that if they stayed in the house at night, they were all right; that if they slept in the second story, they were protected; and that if they had three hundred yards cleared around the house, they were safe. Of course, these views are directly in line with the habits of the mosquito.

In the last fifteen years, I have known of a tremendous recession of malaria all along the Mississippi River and in the cotton belt, where it used to be impossible for white men to live. That was due to the fact that the planters have been clearing a belt three hundred yards wide around their houses, living in the second story, and keeping the families in the house until the dew was off the grass in the morning. Now, if you apply, alongside of these measures, scientific measures, such as screening the houses, widening the area cleared around them, and wiping out the swamps, you will ultimately wipe out malaria in the entire country, just as it has been wiped out in European countries, without the aid of the Board of Health, the disease having disappeared in these countries before the advent of population.

I believe that to obtain good, permanent, practical results, over wide areas not of public domain but of private property, the only real solution of the question is the education of the people in the country on the two main points involved. First, to have them fully understand that Anopheles will always breed in any swamp or marsh they allow to remain on their land, and that the presence

of Anopheles means sooner or later the certainty that one or more of the family will be strickeen with fever, and possibly fatally.

Second—That the elearanee and drainage of sueh lands will give financial returns in many instanees greater than from their apparently better lands.

By the use of such methods we will annihilate millions of Anopheles, but still have a large problem unsolved.

There are in all States some bodies of land too large for individual eontrol, and this brings to view another angle of the subjeet, which I some months ago presented to the assembled Parish Health Officers of Louisiana, viz.: the necessity for Nation or State to take hold of such localities and provide the drainage necessary for their reelamation.

It is no more impertinent to ask for drainage with health and wealth of the people in view as the net result, than to ask for reelamation of the deserts of the West with wealth only as the incentive, as was done by President Roosevelt and justly applauded by the Nation.

And can we not interest the Nation and the State in the obliteration of the big swamps? Is this not an integral part of the movement that has been started for the improvement of waste lands? Should not national drainage go alongside of national irrigation? And is it not as important, or more so, that one be done as the other. President Roosevelt's proposition for national irrigation was at first demurred against; then aceepted; and later, with its full suceess, applauded. That proposition led only to public wealth; this leads to both health and wealth. There is no reason why the Nation and the State should not apply their money to the drainage of swamps, and so do what will lead to the ultimate obliteration of malaria in the United States.

If sueh a movement is once begun, it will go forward to completion more rapidly than the other, and if the vast swamp areas of the South, serving the same fell purpose in malaria that the endemic foci do in yellow fever, are drained, if we have our endemic centers of malaria removed, the object lesson will be so strong and so pointed that the people ean be easily induced to put their shoulders to the wheel and make this sapper of vitality as rare here in Amerieа as in Northern Europe, and so rid us in part at least of one impending evil, one huge threat to the future of the South, and through the South to the whole Nation, for so elosely knit are we

to-day by ties of common interest as well as brotherly love. that I had not named by own dear land as South at all save that we have the unfortunate distinction of being the greatest sufferers from this pest.

Miscellany.

The Rat, the Flea and the Plague.

Some Plain Facts for the Public.

Prepared for the Medical Plague Conference Committee of New Orleans, by Dr. Isadore Dyer.

Bubonic plague is a rat and a rat flea disease.

Plague has existed since earliest historic times.

For 3,000 years the rat has been suspected as the means of the spread of the plague.

Rats may be infected with the plague for years before human plague develops.

NO RATS—NO PLAGUE.

The plague is due to a germ, called the plague bacillus (*Bacillus pestis*), discovered by Yersin, of the Pasteur Institute, during the Hong Kong epidemic in 1894.

This germ depends upon some living body for its life and existence and it lives in animals and insects as well as human beings; the rat and the rat flea are the particular animal and particular insect preferred by the plague bacillus. Ground squirrels and other rodents may become infected with plague as well as rats.

The plague has been around and over the earth several times—traveling overland and by sea.

Wherever ships carry rats the plague may go.

Plague may be chronic in a rat, lasting a long time without killing the rat. The body companion of the rat, the rat flea (*Pulex Cheopis* and *Pulex Ceratophyllus fasciatus),* shares the disorder; only the plague usually kills the rat, while the germ of the plague grows in the flea without killing it. Dead rats in plague times are apt to be more dangerous than live rats, for the fleas leave them and, though they prefer rats, if there are no rats, they will attack the next passerby, human usually.

PLAGUE, RAT, FLEA; MAN, PLAGUE, RAT, FLEA, AND MAN AGAIN, so the cycle runs, unless interrupted. *KILL THE RAT AND THE FLEA* and there can be no plague.

The plague usually spends itself finally, when epidemic, by attacking or destroying rats and human beings in a community, to such an extent that there are no more victims.

Two plague pandemics in the 14th century destroyed over 75,000,000 people in two years! A loss of life almost equal to 85% of the present population of the United States! Even today the mortality runs to about 70% of those attacked by the disease.

The plague kills the human being rapidly; the rat less rapidly, and the rat flea not at all.

NO FLEA, NO PLAGUE; NO RATS, NO FLEAS!

Plague is usually less prevalent in cold weather because fleas are not as active as in hot weather and because rats keep more in their nests and burrows.

Rat fleas bite human beings, *the scratching rubs in the infection* and the victim of the flea is liable to inoculation with the plague.

Don't scratch insect bites!

It requires personal contact with the victim of the plague for another human to contract the disease from him, *provided there are no fleas about.* Segregation of the victim of the plague prevents the spread of the plague, just as with small-pox, scarlet fever or diphtheria. There is no reason for an epidemic of plague, if there are no fleas and no rats to carry the infection from house to house and, therefore, from man to man.

In 1900 plague appeared in San Francisco. If the public had been educated as to what plague is and what to do to prevent its spread, there would have been less to do to check the disease. The spread of plague in former times should have been sufficient warning to San Francisco—and the likelihood of its coming was a matter of constant apprehension by all who had thought seriously about it.

We should have no repetition of the San Francisco experiences here. Dr. J. H. White, of the Marine Hospital Service, who initiated the measures to eradicate plague in San Francisco, three years ago, appealed to the people of New Orleans to exterminate rats and warned us of the likelihood of plague coming this way. He has been a true prophet as plague is now in the West Indies and is knocking at our door.

Dr. Fred J. Mayer, at the meeting of the Louisiana State Medical Society in May, urged the adoption of a memorial to the Louisiana State Legislature asking for $1,000,000 appropriation to exterminate rats. This would be a small price to pay if it could accomplish the result.

IT IS NOT TOO LATE TO BEGIN THE WARFARE NOW.

Even if plague infected rats are found in the laboratories of the Health Board, there is still only the *likelihood* of human infection and not a *necessary* infection. *If rats are killed with their fleas,* the likelihood grows less.

This is the age of common sense and, with common sense, of *preventive* medicine.

NO RATS, NO FLEAS; NO FLEAS, NO PLAGUE!
KILL THE RATS AND THE FLEAS!

San Francisco had a second epidemic of the plague beginning in 1907. This time the people *were* educated.

The health authorities joined with all the people in a crucade against rats and their fleas. All commercial bodies, religious and fraternal organizations and all organized bodies joined in a common cause.

Every householder became interested and a systematic rat extermination was instituted and the pest checked.

Everybody worked and there was no unnecessary fright or scare.

We have that experience to guide us. We have the advantage of San Francisco, for we have no plague.

We are trained by the experience of San Francisco and we are warned by the experience of all ages in the spread of the plague.

In San Francisco all kinds and sorts of people got together to meet an emergency.

WE MUST GET TOGETHER NOW!

WHAT EACH HOUSEHOLDER AND EVERY CITIZEN CAN DO TO PREVENT PLAGUE.

1. Obey the Law. Use only metal garbage cans and see that they are always covered.
2. See that no foodstuffs are lying around for the rats. *Starve the rats* and they will be forced into the traps. Set the example for your neighbor.
3. Catch and kill all rats on the premises. See that rats when caught are AT ONCE dipped in strong (1-1,000) corrosive

sublimate solution or in kerosene oil. The traps and rats together may be sprayed instead with equal parts of kerosene oil and soap suds water. *This will kill the fleas.* Pure kerosene is better still.

DO NOT HANDLE RATS NOR CAGES NOR TRAPS with the hands until the dipping or spraying has been done—for *one infected flea may come your way.* Use tongs or cloths soaked in kerosene for handling the traps and rats.

4. See that all barns and stables are cleaned up. Where there is wooden flooring, try to have this changed to concrete, or tear up the wooden flooring and use gravel.

   Leave no grain, hay, manure, or the like lying about. In other words, remove all possible rat food or material for rat or flea nesting.

5. Sprinkle chloride of lime in all places likely to be infested with rats—or sprinkle the kerosense soap suds emulsion. Both will kill fleas.

   In mopping floors in homes, stores, etc., use a small amount of kerosene in the bucket used for the purpose. This will fill the cracks of the floors with a substance which is preventive of fleas.

6. Chicken yards are rat nests. Either concrete the flooring of chicken coops or use elevated cages for the chickens, with a concrete flooring beneath to catch the droppings and the stray corn or foodstuff. The floor should be cleaned frequently so as to prevent accumulations which might attract rats.

7. Keep all premises clean. Rubbish harbors rats.

8. *Talk rats* to everyone of your neighbors and to everyone you meet until the extermination of rats and mice becomes a prime question. Keep it up as long as a rat or a mouse can be destroyed and do not overlook the fleas.

   NO RATS, NO FLEAS; NO FLEAS, NO PLAGUE. MAKE THAT THE SLOGAN!

9. When subscription is asked for the campaign against rats, give your share, *no matter how small.*

   It will mean organization of the proper forces to fight the conditions here.

10. Remember that *one* diseased rat in your backyard may cost the lives of all of your household.

11. Until asked to bring rats to a central point—burn all carases promptly—after dipping or spraying for the fleas.

12. The United States Public Health and Marine Service has published several educational bulletins on the plague and on the rat. Copies may be had by sending five cents for each bulletin to the Surgeon General, U. S. P. H. & M. H. S., at Washington, D. C. List of publications may be had free.

NOTES ON THE PLAGUE.

1334. Black Death destroyed over 25,000,000 persons in Europe.
1348. More than 42,000,000 people in the world died of plague. The disease was endemic in Europe from the 14th to the 19th Century.
1720. From Syria to Marseilles the plague killed 80,000.
1803. Plague in Constantinople; 150,000 died.
1810. Plague in Constantinople; 110,000 died.
Between 1783 and 1844, 21 epidemics of plague occurred in India.
1894. Plague began in Canton—spreading to Hong Kong; 192,000 lives lost.
1904. Over a million people died of plague in India, which is now the plague center of the world.
Since 1896 plague has traveled from Bombay to Australia, Hawaii and Japan—up the western coast of South America and to San Francisco.

Plague is endemic among the rats in the vicinity of London, but no human plague has occurred

Plague is now ocasional in California and ten per cent of the ground squirrels examined are found infected in several California counties. Infected rodents have been found in Arizona.

Havana has had three cases of plague, the last case reported July 22, 1912. The first case is convalescing; the second case died. The third case developed in the same house in which the second case occurred.

No infected rats have so far been found in Havana.

In Porto Rico a number of cases of plague have occurred with over 60% mortality.

At the last report the Canal Zone was free of plague.

A conference of all cities and authorities interested in plague prevention is planned to be held in the near future, for the consideration of uniform measures throughout the South Atlantic and Gulf States.

In Manila, both rat plague and human plague have been controlled and eliminated by systematic and open co-operation in destroying rats in all dangerous areas first and wholesale afterwards.

Previously both rat and human plague prevailed epidemically.

The example of Manila should preclude any fear of failure here in this country and should ever urge a prompt activity to anticipate the need of fighting a foe when we can prevent its coming.

This bulletin is issued by the New Orleans Medical Plague Conference Committee for public instruction.

DR. OSCAR DOWLING, Chairman.	DR. J. A. DANNA,
DR. W. T. O'REILLY,	DR. J. B. GUTHRIE,
DR. J. H. WHITE,	DR. ISADORE DYER,
DR. H. D. KING,	DR. A. C. KING,
DR. M. J. MAGRUDER,	DR. E. D. MARTIN,
DR. W. H. SEEMAN,	DR. CREIGHTON WELLMAN,
DR. C. A. BAHN,	DR. B. A. LEDBETTER.

EDUCATION AND PUBLIC HEALTH.—Paschal regards it as eminently proper for every state medical association to have a bureau on education from which well written articles could be contributed to the secular press. Unfortunately, he says, our profession is in some respects a peculiar one. It is, to a large extent, a jealous profession and many believe that a colleague who is prominent in public affairs is likely so for selfish purposes; and if an article though it be of vast importance in an educational way, appears in the secular press with the name of the author attached, the great good it may do is overlooked and the author is severely criticized and censured. It is true, that adverse criticism might be, under certain conditions, right; but on the other hand, where a physician is honest and has attained the respect and confidence of his fellow-practitioners and the community at large, there should be no feeling against him; on the contrary, he should be recommended and encouraged to continue his good work. Organized as the profession is, with a medical society in almost every county in the State, and in almost every county in the United States, there should be no difficulty in reaching and teaching the humblest on the cause and prevention of disease. This can be done by each county society selecting some of its best men to address meetings composed of the class not likely to be reached through the secular press. Meetings could be held in different quarters at different times, and while it is not to be expected that the people would turn out en masse, still, by dividing towns and districts into small precincts and keeping at it, there would be little difficulty in ultimately getting their attention; then by lectures devoid of all technicalities and in words that could be easily understood by all, the necessary information could easily be imparted.—*Texas State Jour. Med.* J. A. S.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

Professor Archinard.

Paul Emile Archinard, A. B., M. D., Professor of Nervous Diseases in both the Undergraduate and the Postgraduate Medical Departments of the Tulane University; bacteriologist of the Louisiana State Board of Health and of the Board of Health of the City of New Orleans, died at the age of 53, in New Orleans, his native city, on August 23, after a prolonged illness, which he bore with most extraordinary fortitude and determination.

His was a fruitful life. As a physician, a teacher, a citizen—as a man, every inch of him, he did his full part, and did it well. A mere mention of the various positions he held at different times, and the bodies in which he obtained membership, would occupy much space, and, as this is no attempt at biography, it will suffice to say that he filled the positions more than creditably and took a prominent place in the societies to which he belonged.

Endowed with a large degree of intellect, together with the capacity and willingness to work, he was prepared to profit, during his early days as a hospital student and a young doctor, by the teachings of Schmidt in pathology and bacteriology, of Lemonnier in medico-legal lore, and, later, by his training under Pasteur, Koch and Charcot. He became an eminent pathologist and bacteriologist, most of his writings being along that line, including his text-book on "Microscopy and Bacteriology," which is highly thought of and enjoys the distinction of having been translated into Chinese. His conscientious studies, inherent common sense, and unusually good judgment combined to make him an efficient and beloved practitioner, and, when he limited his field, an expert and authority in neurology, which branch he taught with much success.

His main characteristic was his indomitable will. His mind once made up, nothing could change it; no power on earth could swerve him from his course. Always quick, sometimes even irritable after his illness began to make itself felt, he was, nevertheless, most

gentle, kind and thoughtful. His was a true charity, absolutely unostentatious, and one of spirit as well as of deeds.

Above everything he prized honesty and loyalty, and he lived an honest and loyal life.

May you rest in peace, P. E., congenial companion of a lifetime, esteemed colleague and collaborator, staunch and true friend!

The Pellagra Conference.

In early October a second national conference on Pellagra is to convene at Columbia, S. C., the same place at which the first conference was held.

The interest in this mysterious disease has grown great within the past few years, especially as the disease is now known to have occurred in practically every section of the United States. There seem to be certain focal centers around which a greater prevalence is noticed, but the disease has grown frequent in some States where a year or two ago it was not recognized.

All of the States along the Gulf and South Atlantic have experienced the disease in evidently growing numbers and more recently Arkansas has been added to the southern group of States in which the disease is reaching epidemic proportions.

It is wise to hold frequent conferences for the discussion of this most important subject and it will be of greater service another year if a more central location is selected for the meeting place than Columbia, now that the area of the disease has extended beyond the Mississippi.

The pathology of pellagra has been well worked out, as has also its neurological and symptomological phases, but we are still far from the solution of the etiology and specific treatment for the disease.

The general debate on these questions may soon lead to the actual solution, and it is to be hoped that the discovery of the causa morbi may rest among our own American explorers in the field.

The Plague Situation.

Since the last JOURNAL was published one infected rat has been found and studied in the Board of Health laboratory in New Orleans, with all postulates fulfilled, proving the presence of the plague in the rat.

Every day since the one infected rat was brought in dozens of rats have been examined from the same district and from all other sections of New Orleans as well, with negative findings. In the meantime, the health authorities of the City of New Orleans, of the State of Louisiana, in conjunction with a representative committee from the Orleans Parish Medical Society have been busy planning for a thoro campaign against rats and for plague prevention; the educational campaign being apart from the routine activities of the health authorities. A mass meeting of citizens was held on August 7th, under the auspices of the Orleans Parish Medical Society and educational addresses were delivered by a number of representative medical men, aiming at stirring up public opinion for cleanliness and particularly for rat extermination.

The Federal service of the U. S. P. and M. H. S., under the able direction of Surgeon J. H. White, has undertaken the thoro protection of docks against rats coming from ships and the ships are being rapidly equipped with hawser shields protecting against rats both as to ingress and egress. At night all gangplanks are raised and every precaution employed in this manner to prevent rats' travel to and from ships.

The local health authorities have busily begun the cleaning up and rat extermination in the district in which the one infected rat was found, and on August 13 the chief health officer, Dr. W. T. O'Reilly, petitioned the City Council to give him authority by ordinance to require the necessary rat-proofing of dwellings in any neighborhood where such becomes necessary or advisable. The funds for the campaign so far have been furnished by the City as emergency expenditures and the City health officer has been assured of continued support.

No present apprehension of human plague in New Orleans is felt, but the campaign for prevention is undertaken now and the plans are being laid for a long labor to anticipate by prevention what may occur a year or two from now.

It is gratifying to know that the efforts are under way at all of the important Gulf ports and that an agreement has been reached among the health authorities at the conference held in New Orleans on July 29, thru which a systematic mode of procedure is to be undertaken in all Gulf Coast ports of entry.

The general sense of preparedness which must be established in our Southern ports is encouraging, and the hope is engendered that

with the precautions observed and with the active co-operation of the people themselves we may be spared the visitation of that "Black Death" which for centuries has hovered in the horizon of every continent with a rumbling of coming disaster.

Arsenobenzol in Rabies.

One swallow does not make a summer, yet, in some conditions, a single observation may at least command serious attention.

We take it that such is the case regarding the observation recently published in *Policlinico* by Dr. R. Tonin. Briefly related, here are the facts: A girl of thirteen was bitten on the foot by a dog supposed to be mad; the Pasteur antirabic treatment was only begun twelve days later, and before its termination characteristic symptoms of rabies developed, such as laryngo-pharyngeal spasms and signs of an ascending myelitis; she was then given an intravenous injection of .3 gram of arsenobenzol in 300 grams of salt solution; in a few hours the patient became quieter, the pharyngeal spasms ceased, and she was able to swallow liquids. The rachialgia, paresis of the muscles of the back and limbs, respiratory and circulatory troubles, facial paralysis, gradually yielded to hot baths and auxiliary treatment instead of progressing until the death of the patient, as has been the inevitable course. At the time of the report only a trace of paralysis of the external ocular motor remains.

Taking into account that the Pasteur treatment is only preventive, that rabies once developed invariably causes death, we deem the above report of the highest value and deserving of the greatest and most prompt publicity, in order that the treatment may be put to further tests, and that valuable lives may be saved which are bound to be lost if this treatment proves to be inefficient.

Editorial Notice.

The August issue of the *Southern Medical Journal* is in every way creditable to its editors. Aside from a notable group of contributors, the articles are of high order and the ensemble makes the *Journal* one of which all of the membership of the Southern Medical Association, which it represents, may feel justly proud.

This JOURNAL especially is grateful for the kindly compliment conveyed in the editorial pages, and we wish to assure our esteemed contemporary that the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL will be more than glad to co-operate in advancing the cause of medicine in the South, for which it has already stood exponent for nearly three-quarters of a century. The new field of tropical medicine in our Southern country makes also common cause, and it is opportune that our worthy contemporary should join us in the invitation to the world to come to our Gulf cities to study these diseases first hand and under proper conditions.

Again to you, *Southern Medical Journal,* the hand of fellowship—and always, in a good cause, *con amore!*

The United States Public Health Service.

We read in *Science* that, under date of August 14, the Public Health and Marine Hospital Service changed its name to the "United States Public Health Service," and that the new service is given very wide authority to investigate the "diseases of man and conditions influencing the propagation and spread thereof, including sanitation." Further, that all previous laws relating to quarantine, eradication of certain epidemic diseases and the investigations of the Hygienic Laboratory, etc., remain in force.

This Act of Congress, approved by the President, means a great deal in the rehabilitation of the old service, and its scope is so much increased that it is quite unlikely that any influence can be brought to bear which will either relegate this service or abrogate its functions. It will go on growing in power, and, we trust, in usefulness. Meantime the protagonists of the Owen Bill must sit up and take notice, for that is about all there is left to do, and this counter, begun by the late Dr. Wyman, will probably end in a quick burial of the Owen Bill, to the sorrow of its hopeful friends. *Vale! Vale! Vale!*

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of Dr. P. Michinard and Dr. C. J. Miller, New Orleans.

Venesection in Eclampsia.—Zweifel *(Archiv. für Gynäk.)* applied venesection in 57 of his 71 cases of post-partum eclampsia and almost invariably the convulsions ceased after the venesection. All the patients thus treated recovered. He is confident that venesection never did any harm, while all concerned were impressed with the benefit from it; it proved a life-saving measure in many cases. Recent research by himself and others has demonstrated that in eclampsia the blood is much more concentrated than normal. This is an additional argument in favor of venesection, while it explains the aggravation of the eclampsia liable to follow sweating procedures. Stroganoff's prophylactic method is the routine treatment of eclampsia followed in his service, often supplemented by venesection when the convulsions keep up after delivery. Mace has reported 11% mortality in 27 patients treated by venesection alone; Potocki two in 12 cases and Saint Blaise no mortality in 14. In conclusion Zweifel protests against the practice current in his district of forcing a person in syncope or otherwise unconscious to swallow some water. The laity have an idea that this is the proper thing to do; the fluid is not swallowed but gets into the lungs, and this was the cause of three of the eight deaths in his service last year, the patients succumbing to the pneumonia that developed in consequence. He urges that physicians should impress repeatedly on midwives and others that nothing should be given by the mouth to unconscious persons.—*Jour. Am. Med. Asso.* Miller.

Puerperal Pyemia.—The three cases reported in detail by Warnekros *(Archiv. für Gynäk.)*, supplemented by the necropsy findings, illustrate anew the difficulties of operative efforts in this condition, but they demonstrate the importance of continued bacteriologic control of the clinical manifestations. This gives a clear oversight of the course of affairs and a basis for therapeutic measures and for estimation of their effects. The primary fever shows the effect of the local endometritis; a chill repeated next day, with

intervals of subnormal temperature, indicates development of thrombophlebitis with occasional passage of the germs into the blood. If the fever goes higher but without chills, the blood has evidently been invaded without primary thrombosis. As long as infection is localized in the uterus the blood is sterile. With the thrombophlebitis-pyemic form, germs are found in the blood only during the chills, and the blood is sterile in the intervals; this form has thus a more favorable prognosis. Ligation of the vein involved has a prospect of success as the blood is sterile between the chills, or nearly so, and the organism is able to keep the germs under control if a new overwhelming of the blood with them can be warded off. In one of the cases reported the blood was found entirely sterile after the vein had been ligated. The best point for this, he thinks, is the common iliac vein. If the thrombosis extends above this, the vena cava can be ligated without fear; ample collateral circulation promptly develops, as he witnessed in 2 of his cases.—*Ibid.* MILLER.

CONSERVATIVE TREATMENT OF ECLAMPSIA.—*(Correspondenz-Blatt für Schweizer Aerzte.)*—Stieger compares the statistics reported at the recent international gynecologic congress, showing that none of the speakers has had such a slow mortality from eclampsia as Stroganoff. With his excellent technic, his mortality has been only 7% in 700 cases. Steiger adds that similarly good results have been obtained with the method in Western Europe, notably at Dublin (9.09% in 66 cases.) The principle is to keep the metabolic processes down to the minimum; promote elimination of fluids and toxins through the kidneys—not through the skin; clear out the gastrointestinal tract and extract the fetus when the soft parts are sufficiently dilated, not before. Forcible delivery is not advisable. At Dublin (Tweedy) Stroganoff's technic is modified, morphin plus atropin being used instead of chloroform and chloral, as less injurious for the heart. A subcutaneous injection of 0.03 gm. morphin is given at once and half this dose is given every two hours, if needed, up to a maximum of 0.12 morphin in 24 hours. If the patient is conscious, castor oil is given; if not, the stomach tube is introduced and the stomach rinsed out with several liters of warm water and half a liter is left in the stomach, and finally a dose of castor oil is poured through the tube. The intestines are then rinsed out in the same way until the fluid comes clear and a liter is left in the bowel. Warm cataplasms are applied to the kidney region every two hours,

not hot enough to cause sweating. The urine is then drawn for examination. If the patient is still unconscious, two liters of a sodium bicarbonate solution are infused, repeated eight or ten hours later if the patient has not roused from her unconsciousness. This is preferred to physiologic salt solution on account of the injury to the kidneys from the salt. No food of any kind is allowed until the convulsions are definitely under control. The patient is kept in a darkened room, turning her from one side to the other occasionally to permit the saliva to run out, never leaving her on her back. In case the patient stops breathing, Tweedy draws her head down over the edge of the bed, pulls the lower jaw forward and applies measures for artificial respiration; obstructing saliva and mucus escape if the down-hanging head is drawn backward by seizing the back hair so that the face looks upward.—*Ibid.* MILLER.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

DIAGNOSIS OF DUODENAL ULCER.—As a general rule it may be stated, says Herschel, that the symptoms of duodenal ulcer are those which were formerly at first called acid dyspepsia, and more recently hyperchlorhydria. The writer thinks, however, that we are not justified in the assertion recently made by Moynihan, of Leeds, in a monograph upon duodenal ulcer that "persistent hyperchlorhydria is the medical term for the surgical condition duodenal ulcer." We undoubtedly find symptoms, which in practice cannot be distinguished from those of duodenal ulcer, in chronic gall-stone disease, and in chronic appendicitis; and there are most certainly both a condition of hyperchlorhydria due to proliferative gastritis and also one which is a purely nervous condition. Nevertheless, the fact remains, and this is as far as the writer thinks we are justified in going, that there is a group of different affections comprising those enumerated above which are characterized by the symptom-complex to which stomach specialists for the last ten years have given the name of hyperchlorhydria, and that of these duodenal ulcer is by far the commonest.—*American Medicine.* J. A. S.

THE DIAGNOSTIC IMPORTANCE OF HEMOPTYSIS.—Dr. Bartlett draws the following conclusions from his study of hemoptysis:

1. Bleeding from the upper air passages must be ruled out by careful inspection and history.

2. Hemoptysis may occur in certain constitutional or blood diseases as merely another manifestation of the general tendency to bleed.

3. Hemoptysis frequently occurs in broken compensation in heart disease.

4. Ninety per cent of all hemoptysis are tuberculous. As a rule definite signs and symptoms are present. Not uncommonly, however, they are in abeyance for months or even years.

5. Hemoptysis may occur in any ulcerating or eroding pulmonary disease. It should, therefore, be expected in abscess, gangrene, bronchiectasis or pulmonary cirrhosis.

6. Hemoptysis in pneumonia, bronchitis, asthma or following trauma should lead to the suspicion of an underlying tuberculous process.

7. It is very doubtful if vicarious menstruation or hysteria can produce hemoptysis in normal lungs.

8. Hemoptysis occurring without warning in young and healthy adults, and passing off without the development of further signs or symptoms of tuberculosis is probably of tuberculous origin and should be so treated.

9. Broncho-pulmonary hemorrhage without definite symptoms or signs of cardiac or ulcerative pulmonary disease is due in nearly every instance to tuberculous infection, which is merely another way of saying that hemoptysis should be considered as due to pulmonary tuberculosis unless proved to be due to some other cause.—*Boston Medical and Surgical Journal.* J. A. S.

Treatment of Mucous Colitis.—Colitis mucosa in the adult, Hernaman-Johnson considers essentially a neurosis. It is generally associated with constipation, but attention to this often fails to effect a cure. Nor does the surgical removal of some obvious offense, such as chronically inflamed appendix, by any means invariably meet with sucess. Its coming has been a gradual process, dating from childhood or adolescence. In the former period, prevention is easy, and cure can be accomplished by the means at the disposal of the ordinary practitioner. During early youth, the causes are more subtle, tend to become mental rather than physical, general rather than localized, in the gut itself. The disease now

calls for special therapeutic measures, but it is still usually possible to ward off any serious consequences. As a general proposition, colica mucosa up to the age of 15 should be prevented, and can be cured.—*Medical Press and Circular,* London. J. A. S.

Treatment of Jaundice.—Hoppe-Seyler discusses the general principles of treatment of this symptom, emphasizing the importance of the search for its cause and the necessity for supervision of the diet and mode of life. Even apparently insignificant affections of the bile passages may lead to severe disturbances in the liver, even to acute atrophy. Rest for the liver as long as there is jaundice extremely important, especially when there is fever. The diet should not stimulate liver functioning, and should take into account the changed conditions in regard to digestion in the intestines from lack of bile.—*Deutsche Medizinische Wochenschrift,* Vienna. J. A. S.

Molds in Alimentary Canal.—Hall believes that molds have a casual relation to cholera nostras and infantile diarrhea, for the reason that molds are often present when no other sufficient cause of the symptoms can be found. They are present in abundance in some of the most fatal diseases. Their partial destruction is followed by immediate improvement. Their complete removal in such cases is an essential element in recovery.—*Canadian Medical Ass'n Jour.,* Toronto. J. A. S.

The Management of Epidemic Summer Diarrhea and Vomiting, Including the Use of Saline Injections.—To the *British Medical Journal* of Sept. 16, 1911, Waller and Walker contribute a paper on this topic, and describe their method as follows:

On admission, the stomach is washed out with saline (0.9 per cent solution) at a temperature of 110 F. The gastric contents are often exceedingly foul-smelling and copious. With very few exceptions vomiting ceases absolutely and does not recur. The rectum is next washed out with saline at a similar temperature, the irrigation continuing until the return flow is clear. If done in this order time is saved, as the bowels usually move freely during the gastric lavage, and the subsequent rectal irrigation is a shorter proceeding. If any great degree of collapse or shock is present, a mustard bath, or, in extreme cases, a mustard pack, is given, and is one of the most useful remedies that can be employed. The

child will, as a rule, then sleep quietly for an hour or so, during which time a subcutaneous infusion of normal saline, or of a 5 per cent solution of glucose in normal saline, is started.

The method of introducing the fluid under the skin is a point of some importance. It has been found that the usual way of conducting the fluid along india rubber tubing from a supply situated some distance from the child is open to distinct objections. The fluid seldom reaches its destination with more than the chill off, and the child may experience no small degree of shock, rather than any bentfit. This fact might be easily tested by fitting up a flask containing fluid at a temperature of 180 F., and leading it through tubing three feet long into a wad of cotton-wool in which a thermometer is placed. The conditions nearly represent those of the real procedure, and the thermometer will register about 80 F. At this temperature the fluid is absorbed very slowly; in cases of rapid emaciation, this is an additional disadvantage. A method which obviates both difficulties is to use one of the inexpensive forms of vacuum flasks now on the market. An india rubber cork with two holes fitted to it, and through these two glass tubes are introduced—one, drawn out to a fine point, allows air to enter the flask; the other, which may conveniently be of the "two-way" kind, leads the fluid. Not more than eight inches of narrow india rubber tubing are attached to either limb of the two-way tube, and into the ends of each a small silver infusion needle is inserted. A board laid across the sides of the cot, with a hole bored through the center, acts as a support for the neck of the inverted flask.

This simple apparatus has proved so valuable in the wards that it may be worth while to mention a few points about its use. The cork tubes and needles are sterilized by boiling; the flask is disinfected and scalded out with hot water, and though there is a theoretical objection in that it cannot be boiled also, no untoward results have followed in the large number of cases in which it has been employed. In order to warm the vessel, it is allowed to stand for a few minutes before use, filled with sterile water at 120 F. This is then emptied, and the amount of saline prescribed, plus about an ounce to allow for waste, is put in at a temperature of 120 F. This allows for a drop of 15 F. in transit through the tubing, and at 105 F. the fluid has been found to be absorbed most readily.

The child is laid flat on its back, and the limbs secured by band-

ages tied to the sides of the cot. The abdomen or thighs are prepared as for surgical operation, and when the needles have been inserted they are covered by a piece of sterilized gauze or wool. The temperature of the fluid in the flask has been proved not to drop more than 2 or 3 F. in four hours. The amount usually ordered is about seven ounces, and takes two hours to run in. On one occasion, where absorption was very rapid, thirty ounces were given continuously during the night to a baby nine months old with excellent results. The rate of flow can be controlled, if necessary, by screw clamps or artery forceps on the tubing. A very few minutes is enough to start the working of the apparatus, and when once the fluid is running the nurse is free to attend to other duties. An occasional inspection to watch the rate of absorptation is all that is necessary.

The feeding is perhaps the greatest difficulty. Water, perfectly hot, is all that is allowed for twenty-four hours. It is best to feed the child at first with a spoon, as the great thirst induces the baby to take the bottle too greedily, and vomiting results. Whey has been extensively tried as the first food. It answers well, but has the disadvantage of producing a dirty condition of the mouth, even when made freshly every three or four hours. Frequent cleaning of the babies' mouths is undesirable, as it again causes a tendency to vomit. For this reason a 5 per cent solution of glucose, to which albulactin may be added, is useful. Any real return of vomiting calls for a repetition of gastric lavage, but unless milk is started too early this is unlikely to occur.

Frequent repetition of the subcutaneous infusion is the only way to replace the enormous loss of water from the tissues caused by the frequent stools, and opium has proved very useful in checking diarrhea at certain stages, and in controlling restlessness that is often an accompaniment. The weight was observed in one case to drop from twenty-one pounds to fourteen pounds in eight days. There were frequent evacuations of large, watery stools, which measured in some instances over three-quarters of a pint and were passed as often as twelve times in twenty-four hours. Several ounces of saline were injected at twelve-hour intervals under the skin for nine days, and the child began slowly to make up lost ground when diarrhea ceased.

Milk, freshly diluted with water, and with the addition of sodium citrate, is tried only when the diarrhea has shown signs of subsiding.

The strength of the feeds is very gradually increased, but if the attack has been severe and has occurred in a marasmic child, the digestive functions often seem to be entirely suspended for a long while. Open-air treatment has proved of the greatest possible value during convalescence. Of drugs, calomel is repeated in small doses (1/10 grain every hour), castor oil, 2 to 5 minims, and opium, seem perhaps the best; bismuth in anything but quite the late stages, the most deadly. Brandy is useful, if its administration is not unduly prolonged.—*The Therepeutic Gazette.*

J. A. S.

By-Effects from Salvarsan in Syphilis.—Mucha reports, from the clinic for skin and general diseases at Vienna, in charge of Finger, forty-four cases of neuro recurrences in 500 syphilitics given salvarsan treatment. He describes them in detail, commenting that the disturbances involving the auditory nerve since salvarsan has been introduced far outnumber all the cases that have been reported in international literature during the last twenty years. The fact that continuing the treatment sometimes cures the auditory disturbances sustain the assumption that the salvarsan injures the nerve in question, thus inducing a point of lesser resistance where the syphilis virus makes its influence felt more intensely. When the auditory disturbances subside spontaneously, or persist rebellious to renewed treatment of the syphilis, the assumption seem plausible that the trouble was predominantly the result of the toxic action of the arsenic, and that after elimination of the drug the changes were so slight that complete restitution followed, or so severe that this was no longer possible. An argument in favor of this view is the benefit obtained in two cases by sweats and injection of pilocarpin to promote elimination of the arsenic, without further specific treatment. There is still a further possibility, namely, that the salvarsan may have sensitized the syphilitic virus. In his experience there were eighteen cases of nero recurrences in the ear, in which the interval since infection was only six to twelve months. The neuro recurrences were observed with both subcutaneous, intramuscular and intravenous injection of the salvarsan. In conclusion, Mucha reiterates that the so-called neuro recurrences are serious matters for the patient and frequently entail permanent injury, and the patients seldom care for further medication.

Mucha's material includes, besides the eighteen ear cases, six with

general toxic phenomena, digestive disturbances, intense headache and dizziness; six with disturbances in other cerebral nerves, four with epileptiform attacks, two with cerebro-spinal phenomena, five with optic neuritis, one with optic neuritis plus cerebral hemorrhage, leaving motor and mental disturbances; one case of fatal meningo-encephalitis, three cases of non-syphilitic meningitis, seemingly aggravated by salvarsan, and a case of nephritis for which he thinks salvarsan was evidently responsible, as distinct traces of arsenic were perceptible in the urine nine months after the intragluteal injection of salvarsan, and the nephritis showed great improvement under sweating procedures.—*Wiener Klinische Wochenschrift.*

J. A. S.

Department of Ear, Nose and Throat.

In Charge of Drs. A. W. deRoaldes and Clyde Lynch, New Orleans.

The Preparation and Use of Thrombokinase.—Lawrence W. Wood in the 13th report of The Manhattan Eye, Ear and Throat Hospital, says that Morawitz's theory of the coagulation of the blood is commonly accepted. This is that the cellular elements of the tissues produce thrombokinase. He says thrombokinase *plus* calcium salts *plus* throbogen equal thrombin. Thrombin *plus* fibronigen equal fibrin. Howell, criticizing this theory, does not see any reason for adding the thrombokinase and would formulate the changes thus: Corpuscular elements form prothrombin; this *plus* calcium salts *plus* (other possible conditions) equal thrombin. Thrombin *plus* fibrinogen equal fibrin. The experimental work was based, however, on the works of Schmidt and Kohler. Bernheim says this substance is present in the walls of the blood vessels.

Dr. Wood modified Balille's method of extracting thrombokinase in the tissues as follows: Sheep's lungs are taken, direct in sterile towels, and the larger bronchi are removed; to avoid as many bacteria as possible, the tissue is ground in a meat grinder and soaked in twice its volume of sterile water, for one hour. Glacial acetic acid 1 c.c. for every liter of extract is added, drop by drop, with constant stirring. A white flocculent precipitate results, which is immediately collected by centrifuge. This precipitate is neutralized by 10% sodium bicarbonate solution. One c.c. of the pre-

cipitate is diluted with 10 c.c of water boiled thoroughly with phenol thalin as an indicator.

The neutralized precipitate is poured on crystalizing dishes and rapidly evaporated at a low temperature with an electric fan. When nearly dry a 1% solution of thymol in 95% alcohol is added up to nearly equal parts—the dishes are then further dried *in vacuo* over sulphuric acid at a warm temperature—the resulting brown powder is scraped off and put in sealed sterile tubes. A series of tubes were prepared as follows:

(1) Few flakes of thrombokinase
(2) Few flakes of thrombokinase heated dry to 600 c.
(3) Same amount of charcoal
(4) Same amount of calomel
(5) Same amount of bismuth
(6) Same amount of tannic and gallic acid
(7) Nothing.

Equal parts of rabbit's blood was added to each test tube drawn by cardiac puncture.

No. 1 plus 2 clotted in 2 minutes firmly
No. 3 plus 7 clotted in 4 minutes firmly
No. 4 plus 5 clotted in 5 minutes firmly
No. 6 not clotted in 10 minutes.

In another test blood clotted in 40 seconds with thrombokinase, while charcoal went 1½ minutes before clotting.

All experiments showed thrombokinase more active than any other element, except when heated to 70° for 30 minutes. This seemed to destroy the activity of the ferment and would lend additional weight to the probability of its being a ferment.

The ferment has been prepared from the beef liver, spleen, aorta, endocardium and bone marrow, and while not so active as that from the lung, it has proved as active clinically.

Case 1.—Brother and mother bleeders; patient gives same history. Acute frontal sinusitis. Operation, submucous resection; bleeding profuse, continuing in spite of packing for 48 hours. Pack removed, bleeding recurred, continuing for six days; pack removed, nose irrigated, sprayed with adrenalin, no relief. Thrombokinase applied, bleeding ceased, recurred in two days, reapplied No further trouble.

Case 2.—After middle turbinectomy in bleeder, hemorrhage

marked, notwithstanding nasal packs, use of calcium lactate, adrenalin, etc. Thrombokinase applied, bleeding *stopped at once.*

Case 3.—Large papilloma of nose. Profuse bleeding mass was removed successfully by proceeding and following every step by applications of thrombokinase.

Dr. Wood reports some eight cases showing marked action of this ferment in cases where every other means of controlling hemorrhage has failed. De Roaldes and Lynch.

Medical News Items.

Tangipahoa Parish Medical Society.—The annual banquet of the Tangipahoa Parish Medical Society was served at the Commercial Hotel, Amite City, July 18, after which an interesting session was held at the new Stewart Hall. Papers were read by Drs. E. L. McGeehee and W. T. Newman; subjects: "Muncipal Sanitation" and "Prophylaxis of Typhoid Fever," respectively. The secretary was requested to inform the Superintendent of Public Education that the Society is prepared to send a representative to the Teachers' Institute to lecture on subjects of hygiene.

Plague Conference at New Orleans.—On the invitation of Dr. Oscar Dowling, State Health Officer, and Dr. W. T. O'Reilly, City Health Officer of New Orleans, a conference of health officials from Alabama, Georgia, Florida, Mississippi and Texaxs was held in New Orleans, Monday, July 29, for the purpose of considering plans for preventing the introduction into the Gulf ports of bubonic plague, and also the question of quarantine regulations in the event that plague infection should be discovered in a southern port. The states named were represented by one or more health officials, and three representatives of the Public Health and Marine Hospital Service stationed at New Orleans, at the head of which service is Dr. J. H. White, also joined in the conference. Drs. Dowling, O'Reilly and White demonstrated the work being done incident to the thorough rat survey in New Orleans which had been in progress for several weeks. The conference was thoroughly impressed with the fact that every possible scientific precaution was being adopted at New Orleans, and while one or two ports had undertaken a rat

survey, none had adopted the comprehensive plan practised in New Orleans. The visiting health officers, after having resolved themselves into the Southern Health Conference, with plans for a meeting at Mobile, agreed to make operative at once in their respective cities the following line of procedure: A rat survey to be limited to the water fronts; division of cities into districts, with segregation of rats of each area for examination; the examination of rats to include a rat autopsy, search for fleas, microscopic examination and recognition of infected rat localities. Regulations in regard to ships to include 36-inch rat shields on hawsers, rat guards along each gangway while the ship is being loaded or unloaded; fending the ship off of the wharf by four floating timbers joined together and inspection of crated cargoes; extra vigilance to be observed on the part of steamship companies before fruit is unloaded from vessels. In the event of infection being discovered in any city, an area of eight blocks is to be considered the area of suspicion. Further suggestions or regulations are to be adopted whenever infection is discovered.

New Leper Home Board of Control.—The following have been appointed by Governor Hall to the Board of Control of the Leper Home: Patrick E. Burke, John Ponder, Lawrence Fabacher to succeed themselves, with William A. Peale, John W. Phillips, Dr. J. T. Bringier, Alcée Becnel, Henry Barthel and J. D. Hanlon as the new members.

International Congress on Midwifery and Gynecology.—under the patronage of the Empress of Germany, this Congress will meet in Berlin on September 9-12, 1912.

The First National Eugenics Congress opened on July 24 at London and was attended by about 400 delegates, representing 12 different nations.

Sixth Pan-American Congress.—The Sixth Pan-American Congress will convene in Lima, Peru, August 3-10, 1913, in connection with the Latin-American Medical Congress and the Congress of Hygiene. It will be under the patronage of the President of the Republic of Peru, and of the Minister of Foreign Relations and Instruction. The most distinguished physicians and surgeons in the country are in charge of the working of the various sections of the Congress, of which there will be eight in number. Excursions

are planned for those attending the Congress. Some will go from New York or New Orleans directly to Panama; others by way of Mexico and Central America to Panama and down the coast to Peru. From Peru there will be a number taking the trip to Chile by the Trans-Andes Railroad through the tunnel to Buenos Ayres, and back by the same route; whereas others will continue up the east coast to Brazil and will cross from the Rio Janeiro to Lisbon and return by way of Madrid, Barcelona, Paris, London and New York.

Trained Nurse, Philippine Service.—The United States Civil Service Commission announces that the examinations for trained nurse in the Isthmian Canal and the Indian services will be held on October 16, 1912, as scheduled, but that the announcement of the examination for this position in the Philippine service is canceled, because of advice from the Bureau of Insular Affairs that future vacancies in this position in the Philippine service will likely be filled by Filipino women.

The First International Congress of Comparative Pathology will be held at the Faculty of Medicine of Paris, from October 17 to 23, 1912. Not only will the diseases common to men and animals be the object of the many communications that have already been received, but also the relations that may exist between the diseases of the different species of animals. Vegetable pathology and the relations that may exist between some diseases of plants and those of animals will also occupy the attention of the Congress.

The Fifteenth International Congress on Hygiene and Demography.—The dates of this meeting are September 23 to 28, and the place Washington, D. C. Reduced rates have been fixed by most of the railroads, and all other arrangements have been made for a great gathering.

Doctors Fight Insurance Act.—The new national insurance act, compelling working people in England to insure against sickness and disability, has met with considerable opposition from the doctors, as represented by the *British Medical Journal.* They have announced their intention of refusing to attend patients under its provisions. The government has offered the doctors 4s 6d (approximately $1.12) annually for each person insured, but the doctors demand 8s 6d.

Consumption of Absinthe in France.—Report from Paris states that the total consumption of absinthe in France in 1911 was 1,000,000 gallons, and that the sum derived by the French government from the tax on its manufacture amounted to 15,000,000 francs.

Promoting Public Health.—The New York State Department of Health is now seeking co-operation of the labor unions in its work of promoting public health by education and has appointed a special representative to facilitate the carrying out of the campaign by visiting labor organizations and enlisting their aid in preventing communicable diseases and in taking steps to avoid the special diseases and accidents incident to the occupation of their members. Arrangements will be made for special meetings of the labor organizations to be addressed by lecturers of the State Department of Health.

Hookworm Disease in Kentucky.—Ten stations for the study and treatment of hookworm disease were opened in Knox County, Ky., on July 22, under the supervision of the State Board of Health. Government experts will assist in the examinations made by members of the Board at these stations. It is estimated that about 20,000 persons in the Kentucky mountains are afflicted with hookworm disease.

John Bell.—Dr. Eugene R. Corson's discourse on John Bell, Surgeon, is well chosen and worthy of comment. The extracts quoted by Dr. Corson from the writings of John Bell show him to have been a man gifted in many ways, but especially as an anatomist, surgeon and man of science. In the case of the poor leech-catcher can be seen the man sure of his convictions, ready to prove and not afraid to carry them out. His success is attributable to the thoroughness with which he handled his subjects. The article shows the influence of John Bell's teachings and writings on surgery to-day, he being the first to preach and teach the necessity of a thorough knowledge of anatomy in application to surgery. His nobleness of character is proven by his willingness at all times to give his experience for the benefit of his fellow practitioners. The true lover of the "Earthly Paradise" asserts itself in his "Observations on Italy," two pages of which are quoted by Dr. Corson. The article is a worthy tribute to the memory of a man of genius. (Impressions on the article on John Bell, Surgeon, by Dr. Eugene R. Corson.—*Johns Hopkins Bulletin,* August, 1912.)

New York Postgraduate Medical School and Hospital.—At a reorganization meeting of the board of directors of this institution, the following officers were elected: President, Dr. James F. McKernin; second vice-president, Dr. Edward Quintard; treasurer, William Fahnestock, Esq.; secretary, Dr. Arthur F. Chase; secretary of the faculty, Dr. George G. Ward, Jr.; superintendent, Dr. H. T. Summersgill.

Health of Cuba.—The Cuban Cabinet, on August 3, adopted a resolution declaring that Cuba would welcome an American commission for the investigation of Cuba's sanitary condition, and also declaring that Cuba would be found, in the matter of health, to compare favorably with any country in the world.

Gifts to Charities.—The New York Polyclinic Medical School and Hospital received a bequest of $3,000, and the White Plains (New York) Hospital Asociation one of $500, by the will of the late David J. Garth, of East Chester, New York.

The Kinematograph for Public Education in Hygiene.—A unique plan of presenting to the public information about health and the prevention of disease is being used by the Boston Association for the Relief and Control of Tuberculosis, in co-operation with the motion picture theaters. The association employs a trained lecturer, who devotes his whole time to presenting at each performance in a motion picture theater a seven-minute lecture illustrated with thirty-one colored slides. This lecture has already been produced 235 times in twenty-two theaters, and has been listened to by a total of over 97,000 persons. In addition to this, over 22,000 health circulars have been given out at the exit of theaters. These lectures have been unusually well received by the audiences, and the management of the theaters have been very glad to cooperate in this method of presenting educational material to the public. Managers of several theaters have noticed that spitting on the floors has almost ceased. The secretary of the association, Seymour H. Stone, says "several of the managers have suggested that a series of lectures of this kind be given next year in the theaters," and states further that managers from other cities, notably Providence, R. I., and Salem, Mass., as well as some of the smaller cities in Greater Boston, have requested that the lecture be given in their localities.—*Boston Med. and Surg. Journ.*

Appointments.—At the recent annual meeting of the Imperial Cancer Research Fund in London, Dr. Wm. H. Woglom, of Brooklyn, N. Y., was appointed first assistant in New York, a post which is maintained under the Crocker Fund for the Investigation of Cancer. Dr. Woglom was recently sent to London by the directorate of the Crocker Fund to pursue a course of studies under Dr. Brashford, director of the Cancer Research Fund.

Personals.—Dr. P. E. McCown, of Indianapolis, announces that he has removed his office to Suite 623 Home-Mansur Building.

Dr. George S. Whiteside, of Portland, Oregan, announces the removal of his office to the ninth floor of the *Journal* Building.

Dr. C. A. Bahn, of New Orleans, announces the removal of his office to the second floor of Cusachs' Building.

Dr. Morgan M. Smith, of Little Rock, has been made Dean of the Medical Department of the University of Arkansas.

Removals.—Dr. E. S. Scharff, from Plaqueminc, La., to 1117 Maison Blanche Building, New Orleans.

Dr. W. W. Crook, from Minden, La., to Gibsland, La.

Died.—On July 19, 1912, Dr. W. W. Moore, of Summit, Miss., aged 74. Dr. Moore was one of Mississippi's oldest and most prominent physicians.

On August 8, 1912, Dr. Manuel J. Manent, of Algiers, aged 41. Dr. Manent had been practicing in Algiers for the past ten years and was widely known.

On July 11, 1912, Dr. Russell Caffery, of San Antonio, Texas. Dr. Caffery was a graduate of Tulane University and the first president of the Texas Alumni Association of the Tulane Medical Department, and a promnient member of the profession both in his city and State.

Tulane Notes.

Professors Irving Hardesty and Gustav Mann have summered in Europe.

Dr. Jean V. Cooke has resigned the demonstratorship in the Department of Pathology to accept a position in the University of California as assistant professor in pathology.

Dr. H. H. Bullard has resigned the position of demonstrator and lecturer in the Department of Anatomy to accept a position at the University of Pittsburg as assistant professor of anatomy.

Dr. Creighton Wellman gave a summer course at the University of California in bacteriology and hygiene.

Dr. J. Casson Geiger, of the class of 1912, has been appointed assistant director of the hygienic laboratories of the State of California, in addition to his other duties.

The Touro Infirmary has increased its intern staff by one, appointed for the Pathological Department for one year. This position is now vacant, and Tulane men recently graduated may apply.

Professor Robert Sharp, head of the Department of English for many years and Dean of the Graduate Department, has been named acting president of the Board of Administrators of the Tulane Edutional Fund. Professor Sharp's appointment has met with the hearty approval of every one interested.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Duodenal Ulcer, by B. G. A. MOYNIHAN, M. S. (Lond.), F. R. C. S. (Leeds). Second edition. W. B. Saunders Company, Philadelphia and London, 1912.

The appearance of the second and enlarged edition of what may be called an epoch-making book naturally calls for much interest in the medical world.

The differential diagnoses of duodenal ulcer are well set forth. The results of X-ray examinations of the stomach after the administration of bismuth bring this branch of gastro-enteric diagnosis abreast of our present-day knowledge. Digestion in the chronic ulcer, as seen by the X-ray, is dealt with regarding the causation of gastric ulcer, we read:

"There can, I think, no longer be any question that both gastric and duodenal ulcers are secondary to some toxic or infective process, the various stages of the disorder being infection, congestion of gastric mucosa with erosion, possibly the result in many cases of retrograde venous embolism, as shown by Wilkie, in *Edin. Med. Jour.,* 1912, i), superficial ulceration (the 'medical ulcer' of American authors), and finally chronic ulcer."

The symptomatology of duodenal ulcer is now clear to us. The early recognition of this disease will now put us on our guard to insist on much stricter and more prolonged medical treatment, with the surety that in this manner a goodly percentage of those now seeking help at our hands may be permanently relieved of their suffering without the use of the knife. When it is thought necessary to refer our patients to the surgeon, the best one available should be employed.

The first part of the work gives the symptomatology and treatment of duodenal ulcer; the second gives a detailed statement of 305 cases of duodenal ulcer observed and operated upon by the author since 1900. The progressive internist and surgeon can ill afford to do without this splendid contribution, which is destined, in the reviewer's opinion, to become a classic in medicine. STORCK.

New and Non-Official Remedies, 1912. Containing Descriptions of the Articles Which Have Been Accepted by the Council on Pharmacy and Chemistry of the American Medical Association Prior to January 1, 1912. American Medical Association, Chicago, 1912.

To the physician who desires to keep informed in regard to the introduction of new remedies that conform to the requirements of the Council on Pharmacy and Chemistry of the American Medical Association, this little volume will prove convenient. The Council desires physicians to understand that the acceptance of an article does not necessarily mean a recommendation, but that, so far as known, it complies with the rules adopted by the Council. STORCK.

A Pocket Formulary, by E. QUIN THORNTON, M. D. Lea & Febiger, Philadelphia and New York.

As this is the tenth edition, there is evidently demand for a book of this kind, which has its utility as a reminder and a giver of hints. In it the diseases are arranged alphabetically, and good prescriptions are suggested for various stages and complications, with indications as to the use of each formula. Attention has been directed to the palatability of the remedies, and the author has resorted mostly to the preparations official in the different pharmacopeias. C. C.

Lateral Curvature of the Spine and Round Shoulders, by ROBERT W. LOVETT, M. D. P. Blakiston's Son & Co., Philadelphia, 1912.

The above important, but much-neglected, condition is handled in the same clear and thorough manner by Lovett in this second edition.

We reviewed, five years ago, the first edition, to which not only many more elucidating illustrations have been added, but the text has likewise been revised and extended to keep step with progress. The chapter on Faulty Attitude is specially well presented. We pertinently quote from it the following: "The use of corrective or retentive braces in round shoulders is often unsatisfactory, because they are, as a rule, constructed only to pull the scapula and arms backward, without making efficient forward pressure on the curved dorsal spine, or making any marked improvement in the general attitude. The 'shoulder braces' sold in the instrument shops are notably unsatisfactory in most cases." LARUE.

Surgical Operations, by PELS-LENSDEN. Rebman Company, New York, 1912.

This is the only authorized English translation of the work of Prof. Pels-Lensden, chief surgeon in the Royal Charity Hospital of Berlin.

It is a splendid exposé of German surgical thought and practice. It would be difficult indeed to say which portion of the book is the most instructive. We were, however, particularly impressed with the chapters dealing with Head and Chest Surgery.

Dr. Faxton Gardner, of New York, the translator, is to be complimented on presenting to the medical profession of this country this valuable contribution from abroad. LARUE.

The Surgical Clinics of John B. Murphy, M. D. W. B. Saunders Company, Philadelphia and London, April, 1912.

The first number of the current volume appeared in February. The others are to be issued by-monthly—*i. e.*, six numbers a year. This is the second number of Volume I of Murphy's Surgical Clinics at Mercy Hospital. LARUE.

Cyclopedia of American Medical Biography, by HOWARD A. KELLY, M. D. W. B. Saunders & Co., Philadelphia and London, 1912.

An alphabetical list of notables, with definitive information regarding each, prefaced by miscellaneous articles on the history of the various fields in medicine and in medical education; replete with biographic information concerning many of the individuals in the list—all dead.

The effort is deserving of praise, for the task of so much compilation of so diversely assorted and derived material must have been great. Even now the book is only cyclopedic in the sense that it covers the whole of the United States without being exhaustive in the representative men from all sections; otherwise the names of Bemiss, Chopin, Chaillé, and perhaps others from New Orleans, might have been added. It will be a basis for future expansive revision, however, and any such criticism may be welcomed as making a worthy book more general in its usefulness. DYER.

A Treatise on Tumors, by ARTHUR E. HERTZLER, M. D., Ph. D. Lea & Febiger, Philadelphia and New York.

This is a work of much labor, and covers the entire subject its title implies. In over 700 pages every kind of tumor is discussed, and 546 illustrations are employed to elucidate the text.

Beginning with a thorough resumé of the existing opinions as to the etiology of tumors, the author presents the general classes of tumors, considering each class academically. Then the regional occurrence of tumors is presented, and each type in each locality, with its characteristics, is extensively treated.

The pathology, as well as the factors related to the incidence and etiology, are presented in all detail. The illustrations are practically all original and of a high order. The publishers have spared no pains in making a book worthy of the contents. DYER.

Diseases of Infants and Children, by HENRY DWIGHT CHAPIN, B. A., B. M., and GODFREY ROGER PISEK, M. D. Second edition. Wm. Wood & Co., New York.

This standard work on infantile diseases has reached a second edition, which shows careful revision in every particular. The chapters on therapeutics and feeding are particularly noteworthy for repleteness in practical usefulness. No less worthy are those pages devoted to special diseases. The illustrations are numerous and excellent. The whole work commends itself as modern and as satisfying fully the needs of a reference work for the physician who every day requires exact knowledge on the subjects discussed. DYER.

Electricity. Its Medical and Surgical Applications, Including Radiotherapy, by CHARLES S. POTTS, M. D. Lea & Febiger, Philadelphia and New York.

First introducing the subject with a complete review of the definitions of electric currents, their modes of expression and control, and the mechanisms which make them of use in medicine, the author discusses the effect of electric currents on living tissues, physiologically and otherwise,

The direct application of electrical methods to diagnosis and disease is taken up and graphically presented with mueh detail. The particular forms of current and apparatus of service in diagnosis and treatment are given, with excellent elucidative illustrations. The work concludes with the consideration of groups of diseases amenable to electric treatment, and specific indications and methods are outlined. In every way an excellent work on the subject. DYER.

A Manual of Pathology, by GUTHRIE MCCONNELL, M. D. Second edition. W. B. Saunders & Co., Philadelphia and London.

About 500 pages are devoted to a handbook on pathology, arranged excellently for the student of the subject. Freely illustrated, with clear definitions, and with no attempt at exhaustive discussions, this book commends itself. Sufficient detail in technic and methods is presented for ordinary purposes, and the different phases of gross, minute and cultural pathology are given. The chapter on immunity and infection is especially noteworthy. DYER.

Diseases of the Skin, and Eruptive Fevers, by JAY F. SCHAMBERG, A. B., M. D. Second edition. W. B. Saunders & Co., Philadelphia and London.

Always standard, the division of this book, devoted to the eruptive fevers, needs only commendation for its continued usefulness. Added and better illustrations are to be noted in the section on skin diseases, which has been revised in a number of ways. Vaccin therapy is discussed, as well as radiotherapy. We note, also, the inclusion of "grain itch," sometimes called after Schamberg, who discovered the disease and its parasite in 1901. In other respects the work bears the careful reading of a reviewer, with praise for the uniform care displayed in making a subject of as broad scope so interesting. DYER.

Differential Diagnosis, Presented Through an Analysis of 385 Cases, by RICHARD C. CABOT, M. D. Second edition. W. B. Saunders & Co., Philadelphia and London.

To all who have missed the first edition of this book, the present work is commended, and also the other volume which the author promises. What better method of differential diagnosis than doing it? Case after case is taken in enough detail to present the cardinal features, and each is analyzed to a diagnosis, after comparing and eliminating other possibilities in diagnosis. The book is a veritable clinic in which the writer has worked out the cases in advance on which he now delivers a careful essay, with enough graphic illustrations to make the various topics interesting while instructive. DYER.

Practical Electro-Therapeutics and X-Ray Therapy, by J. M. MARTIN, M. D. C. V. Mosby Company, St. Louis.

The chapters devoted to X-ray therapy are in every way excellent. The careful detail in which the X-ray is used and the specific diseases in which the X-ray may be effective are especially notable. The introductory chapters are also full of clear definitions of electricity and the various modes of its service in therapeutics. The chapter on the high frequency current is disappointing, in comparison with other parts of the book, for, while the current and the apparatus for its use are well presented, the reader would be inclined to interpret the author as finding the current useful in few diseases, simply because so much of its usefulness is not noticed or discussed. To one familiar with the daily use of the high frequency current in skin diseases, and with the knowledge of the broader use in nervous

affections, the absence of the consideration of these topics in so pretentious a work is difficult to interpret. There are also chapters on photo-therapy and on X-ray diagnosis, which are full of interest. DYER.

The Surgery of Oral Diseases and Malformations, by GEORGE VAN INGEN BROWN, D. D. S., M. D., C. M. Lea & Febiger, Philadelphia and New York.

Beginning with introductory chapters on anesthesia methods and in shock, the author presents a rather complete catalog of surgical and topical conditions in the mouth and of the lips. With each, good, general description is given, with plentiful illustrations, and the surgical indications are suggested. The work is opportune, as well as of service in a field so little covered by such comprehensive texts. The grouping of conditions in their relation, first to the anatomical parts of the oral cavity, and then with reference to more intimately associated pathological anomalies and changes, makes for a broader conception of oral surgery than is usually contemplated. Altogether, this work of Dr. Brown is a welcome addition to medical literature and is well worth the reading. DYER.

Pellagra, History, Distribution, Diagnosis, Prognosis, Treatment, Etiology, by STEWART R. ROBERTS, A. M., M. D. C. V. Mosby Company, St. Louis.

An excellent essay on the subject engaged. The illustrations are judicious and, for the most part, graphic. In no sense exhaustive, this work well reviews the best information to be had on pellagra at this time. The chapter on the nervous symptoms and changes in pellagra is elucidating, and shows the careful consideration of existing opinions. The theories as to the causation of pellagra are wisely given the last place in the book, and the zeists and the contra zeists are allowed full space. The treatment of pellagra is detailed with large consideration of arsenic derivatives, while the diet and hygienic care are also discussed. The whole book is written in good style, and shows pains in its preparation. While it is both readable and practical, the story of pellagra runs through the book in a delightful way. The inclusion of an American bibliography in an American book would have added to the value of what must be commended as a most creditable monograph on a timely subject. DYER.

Publications Received.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1912.

Surgical After-Treatment, by L. R. G. Crandon, A. M., M. D., and Albert Ehren Field, A. B., M. D. Second edition, revised.

Infant Feeding, by Clifford G. Crulee, A. M., M. D.

Sexual Impotence, by Victor G. Vecki, M. D. Fourth edition, enlarged.

A Collection of Papers, by William J. Mayo and Charles H. Mayo. Volumes 1 and 2.

Collected Papers, by the Staff of St Mary's Hospital, Mayo Clinic.

The Collected Works of Christian Fenger, M. D. Volumes 1 and 2.

The Surgical Clinics of John B. Murphy, M. D. Volume 1, No. 3, June, 1912.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans

For July, 1912.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	2		2
Intermittent Fever (Malarial Cachexia)	1	3	4
Smallpox			
Measles			
Scarlet Fever			
Whooping Cough			
Diphtheria and Croup	1		1
Influenza	1	1	2
Cholera Nostras			
Pyemia and Septicemia	1		1
Tuberculosis	37	47	84
Cancer	19	11	30
Rheumatism and Gout			
Diabetes	3	1	4
Alcoholism	2		2
Encephalitis and Meningitis	1	3	4
Locomotor Ataxia	1		1
Congestion, Hemorrhage and Softening of Brain	20	8	28
Paralysis	2	4	6
Convulsions of Infants	1	1	2
Other Diseases of Infancy	16	6	22
Tetanus		1	1
Other Nervous Diseases	6		6
Heart Diseases	62	30	92
Bronchitis	4	1	5
Pneumonia and Broncho-Pneumonia	10	15	25
Other Respiratory Diseases	1		1
Ulcer of Stomach	2	1	3
Other Diseases of the Stomach	3	3	6
Diarrhea, Dysentery and Enteritis	30	19	49
Hernia, Intestinal Obstruction	4	1	5
Cirrhosis of Liver	4	1	5
Other Diseases of the Liver	4	2	6
Simple Peritonitis	1		1
Appendicitis			
Bright's Disease	28	23	51
Other Genito-Urinary Diseases	7	8	15
Puerperal Diseases	1	2	3
Senile Debility	2	2	4
Suicide	7	1	8
Injuries	26	29	55
All Other Causes	36	17	53
TOTAL	346	241	587

Still-born Children—White, 21; colored, 21; Total, 42.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 15.26; colored, 28.63; Total, 18.84.

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

Mean atmospheric pressure 30.02
Mean temperature 81.8
Total precipitation ..... 7.38 inches
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

VOL. LXV. OCTOBER, 1912. 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 one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

The Culture and Biological Characteristics of Lepra Bacillus.*

By ALLEN J. SMITH, M. D., Sc. D., LL. D., and D. RIVAS, Ph. D., M. D., Philadelphia.

For convenience and clearness, the work will be considered under four main headings, namely: (1) Historical consideration of Lepra bacillus; (2) the trypsinized media for cultivation of the organisms; (3) cultural characteristics, and (4) bacteremic nature of leprosy.

1. HISTORICAL.—Since the discovery of Lepra bacillus by Hansen, in 1879, numerous attempts have been made by Czaplewski, Spront, Teich, Levy, Nicolle, etc., and more recently by Rost, Williams, Clegg, Duval, etc., to isolate this organism in pure cultures.

The first investigators confined their work to the use of ordinary culture media. Nicolle obtained an apparent growth of the organisms in the water of condensation of glucose, glycerin agar; but, as proven by himself, the growth depended on food upon the cells

* (From the Department of Comparative Pathology and Tropical Medicine, University of Pennsylvania.)

of the tissue inoculated with the material, and a second transplantation remained sterile.

The observations and results of Nicolle, unimportant as they may have appeared at the time, have constituted the basis for the future researches in the cultivation of the lepra bacillus. Nicolle, in his work, showed that the organism required something else besides the ordinary culture media for its growth.

Rost and Williams, from 1904-1910, who no doubt based their observations on the work done by Nicolle, are the first to call attention to the modification of the culture media for the growth of lepra bacillus, Rost using a salt-free medium made from Lemco broth, 250 c. c.; distilled water, 250 c. c.. and milk, 50 c. c., while Williams substituted the water by Ngapee (rotten fish) distilled.

More recently the most favorable results have been obtained by Clegg by growing the lepra bacillus in symbiosis with *B. coli,* B. typhoid or amebæ, the lepra material being planted on a live culture of the above organisms or on cultures previously treated by heat or anti-coli or anti-typhoid serum. Duval obtained cultures of lepra bacillus from lepra nodules on bouillon prepared with the meat of turtles, which represents a lower grade of proteid substance, and, in his later work, by the moistening of the lepra material placed on an ordinary solid medium with a solution of trypsin, or by the simple addition of tryptophane to the medium.

Trypsinized Culture Media: Based upon the favorable results obtained by Duval, it was thought that, if the moistening of the lepra material with a solution of trypsin proved to be successful in the artificial growth of bacillus lepræ, a previous digestion of the proteid substance by this ferment would be equally proficient, and with this point in view the medium was prepared as follows:

Trypsinized Egg Medium: (1) Three whole eggs are thoroughly beaten.

(2) Dissolve 0.5 gram of trypsin in about 10 to 20 c. c. of water by forcible shaking in a test tube.

(3) Add the trypsin suspension to the eggs and digest the medium at about 40° C. for two to three hours in a water bath or Arnold sterilizer, stirring it every fifteen or thirty minutes.

(4) Neutralize if necessary; add about 200 c. c. of water, and thoroughly mix.

(5) Distribute the medium in test tubes or plates, as desired, and proceed as in the preparation of solid blood serum for its hardening and sterilization.

Note.—Sodium chlorid, in the proportion of 0.5 per cent, may or may not be added to the medium. This substance seems to have no special effect upon the growth of the lepra bacillus. If, after hardening, the medium appears too dry, add 0.2 to 0.5 c. c. of water to each tube, before sterilization, to prevent too rapid drying during the subsequent storage; this, however, is not essential, if the medium is going to be used in the next two weeks. Finally, in order to eliminate any possible contamination, it is recommended, as a routine procedure, to incubate the medium at 37° C. for forty-eight hours before it is used.

This trypsinized egg medium has proved very satisfactory for the cultivation of lepra bacillus. The growth is visible after an overnight incubation at 37° C.; distinct after twenty-four hours, and luxuriant after forty-eight hours. The colonies appear first as minute, dew-like droplets, rapidly becoming more consistent and larger, measuring 0.5 to 1.0 m. m. or more in diameter. At this stage the growth takes a pale yellow color, gradually changing into distinct orange, or even orange-red, when old. The surface of the growth is moist and smooth when young, becoming sometimes rough, or even nodular, and somewhat dry, when several months old. At this stage it may resemble in appearance, but not in chromogenesis, the growth of the tubercle bacillus. The culture can be indefinitely subcultured. We have made, so far, six successful transplantations without any detriment to the subsequent growth.

In order to study other cultural characteristics of lepra bacillus, trypsin was used in the digestion of other proteid substances, as peptone, etc. The preparation of this other special medium is as follows:

Trypsinized-Peptone Boullion: For one liter, 10 grams of peptone are dissolved in 200 to 300 c. c. of water by gentle heating. Half a gram of trypsin is dissolved in 10 to 20 c. c. of water as above described. Cool the peptone solution to about 45° C., and add to it the trypsin solution, and incubate at about 40° C. for two to three hours for the digestion of the peptone, stirring the mixture every fifteen or thirty minutes. Neutralize if necessary, and make up the volume to one liter. Boil forcibly for about fifteen minutes; replace water lost by evaporation, filter, tube and sterilize.

The solid medium, like gelatin, or agar, is prepared in the ordinary way, except that the trypsinized peptone bouillon is used instead of the ordinary bouillon. Finally, the dextrose bouillon is prepared

by adding the dextrose or other carbohydrates to the trypsinized bouillon in the desired proportion. In our work, one per cent dextrose was used. The results obtained with this method are as follows:

II. Cultural Characteristics.—(1) *Bouillon:* The trypsinized peptone bouillon becomes slightly cloudy after twenty-four hours at 37° C.; after forty-eight hours a fine, but distinct, pellicle is seen on the surface, which rises to the sides of the tubes. As the culture grows older, the pellicle becomes more marked, resembling somewhat the one formed by tubercle bacillus, except that it remains delicate and brownish yellow in color. Contrary to the ordinary growth of tubercle bacillus, the liquid remains slightly cloudy.

(2) *Indol:* Lepra bacillus does not produce in indol.

(3) *Gelatin:* The growth is distinct at 37° C., and resembles the one observed in bouillon. Gelatin is not liquefied.

(4) *Agar:* The growth of this special medium resembles the one observed on trypsinized egg, except that on agar it is not so luxuriant and the chromogenesis less marked. On stalstab cultures, growth is more marked on the surface and upper part of the medium. Colonies on agar are smaller, often the growth remaining of a pale, yellow color.

(5) *Milk:* Ordinary milk is not coagulated; peptonization of the casein is not apparent. On litmus milk, color remains unchanged for a short time, and a slight alkalinity is observed some days after.

(6) *Dextrose:* Gas is not produced. A pellicle, as in bouillon, is formed on the surface, and the medium remains slightly cloudy. growth is more marked on the bulb of the fermentation tube than in the closed arm.

(7) *Potato:* Growth of lepra bacillus on this carbohydrate is slow and does not present any uncommon features.

(8) *Aerobiasis:* Under partial anaerobic condition (by the vacuum method), lepra bacillus grows poorly; under a more rigorous condition, by the pyrogalol and potassium hydroxid method, no growth has been obtained. According to our result, therefore, the organism is aerobic.

(9) *Tinctorial Characters:* Our culture, when pure, has proved to be a Gram positive and acid-fast bacillus. Lepra bacillus, therefore, resembles tubercle bacillus in being acid-alcohol proof to carbol fuchsin, when decolorized by a solution of 30 per cent hydrochloric acid in 95 per cent alcohol.

(10) *Morphology:* Generally speaking, under artificial conditions in our cultures, the lepra bacillus is a non-motile, short and somewhat thick bacillus, and as the culture grows older it assumes a coccoid form. The long, slender and beaded form usually found in lepra nodules is also seen, but in recently isolated cultures only. The aggregation in masses is very common. In cultures several months old the bacillary form is almost entirely replaced by minute coccoid-like form commonly aggregated in masses.

(11) *Vitality:* The bacillus lepræ is rather resistant to the action of heat; it requires ten to fifteen minutes at 75° C. to 80° C., or short exposure at 100° C., to be destroyed. The temperature of 45° C. for forty-eight hours to three days, we found to have no effect upon the growth. Resistance to dessication is more marked. We were able to obtain cultures of the organism from the proboscis and legs of house flies and other insects forty-eight hours after feeding them with the lepra cultures.

(12) *Virulence:* Several attempts made to produce any lesion on guinea pigs, rats, fishes and some insects, or to obtain a growth of lepra bacillus on the body of these animals, have met with partial success only. For some time after the injection the bacillus has been found widely diffused in the tissues and organs at distant parts from the point of inoculation, but no distinct localization or growth has been observed in our experiments.

(13) *Pleomorphism:* Foulerton is inclined to regard the tubercle bacillus, and likewise other allied organisms, as lepra bacillus, not as a bacillus (fission fungi), but as a streptothrix (mould fungus); and the life cycle of the organism is represented as follows: (1) An original spore; (2) a mycelium derived from this spore; (3) a strepto bacillary chain formed by transverse division of this mycelium; (4) bacillary type, that commonly found in tissues and cultures, derived from the breaking down of this strepto-bacillary chain. This bacillus, in turn, gives rise to the original spore and the cycle is repeated.

Based on Foulerton's theory, Rost and Williams describe two types or phases of the lepra bacillus isolated from lepra nodules: (1) The streptothrix "leproid"; (2) Bacillus lepræ, the latter being derived and found, as an acid-fast nest, in the meshes of the zooglea or mycelial substance of this non-acid-fast streptothrix. Furthermore, a non-acid-fast "diphtheroid" organism, also found, is regarded by Williams as identical with the acid-fast in a transitory phase of the cycle.

To recapitulate, then, the different phases or forms in the cycle of the lepra organism may be represented as follows: (1) A spore form, resembling the fission fungi or bacterial spore, but less resistant than this; (2) a mycelial or streptothrix chain, derived from this spore; (3) a non-acid-fast "diphtheroid" bacillus derived from the streptothrix chain, which probably represents a young condition of the final acid-fast stage; (4) finally, an acid-fast or mature bacilliary type, the form commonly seen in lepra tissue, capable of giving rise to a spore. The beaded or granular appearances, therefore, often seen in this type, may represent a protoplasmic condensation into chromatin masses, in the stage of spore formation.

This pleomorphism of lepra bacillus, if correct, brings us to the consideration of two important questions in connection with the transmission of leprosy: (1) If the acid-fast stage found in man represents the form into which the organism is eliminated from our system, attention should be directed to determine the presence of the streptothrix on the same host; (2) if, to the contrary, this acid-fast organism represents the only parasitic phase in man, then it is not improbable that lepra requires an intermediate host, either a plant or an animal, for the development of the streptothrix phase, from which the bacillary type is transmitted to man. In view of the negative results generally obtained in the transmission of lepra into lower animals, or even into man, the writers are inclined to regard the second theory perhaps more adaptable, and in all probability leprosy requires an intermediate host (probably an insect) for its transmission.

In regard to the non-acid-fast "diphtheroid" bacillus, considered as identical with bacillus lepræ, our observations in this connection are as follows:

At the beginning of last year we received, through the kindness of Dr. Charles W. Duval, a culture recently isolated from lepra nodules. On examination the culture was found to contain, beside the acid-fast organism, amebæ and other non-acid-fast bacilli. In an attempt to isolate the lepra bacillus in pure culture, the culture was finally lost.

A second culture, received some months later from the same source, on examination revealed the presence of a non-acid-fast spore-bearing organism, a non-acid-fast "diphtheroid" bacillus and an acid-fast bacillus lepræ. By plating, the spore-bearing organism was

eliminated, and the non-acid-fast "diphtheroid" bacillus was eliminated by submitting the culture at 70° C. for a few minutes. This temperature being detrimental to the "diphtheroid" organisms, but not to the bacillus lepræ, the latter finally was obtained in pure culture. In this culture, which we have used for our recent studies, the long and slender bacillary type was at first more commonly found, but in subsequent transplantation this form has been replaced by a short, thick, and finally a coccoid type, the latter form being more common, as the culture is several months old. In cultures over five months old small chains, resembling streptococcus, are occcasionally seen, while isolated acid-fast organisms resembling minute spores are also found.

The above variations may be interpreted in two ways: (1) Either this non-acid-fast "diphtheroid" bacillus is merely a contamination, or (2) that it is allied to the acid-fast bacillus lepræ. We are inclined to the second view, first, because, as stated by Williams, "This non-acid-fast form appeared too frequently in the liquid cultures for us to consider it as an accidental contamination, and when we succeeded in obtaining a growth on solid media we were confirmed in this opinion"; secondly, because, as above stated, this form, being less resistant to heat than the acid-fast form, in all probability represents a younger or immature form, or a degeneration stage of this bacillus lepræ. A conclusive proof of this statement, however, we are at this time unable to give, because, so far, we have been unable to obtain this diphtheroid organism in pure culture, or to convert the acid-fast, to our satisfaction, into non-acid-fast, and *vice versa,* except by modification of the ordinary methods of staining. But that this non-acid fast organism is related in some way to the acid-fast type does not lack confirmation; they are seen, though in small numbers, in all acid-fast cultures; their predominance is related in some way to the age of the cultures or to its environmental conditions, such non-acid-fast organisms are met with also in cultures of tubercle bacillus to which the *B. leprœ* is so closely related, and it is our belief that the same negative finding of tubercle bacillus in tuberculous material (sputum, pus, etc.) is due in part to the tendency to regard the organisms as strictly acid-fast only. Non-acid-fast tubercle bacillus unequestionably exists, as is proven by the fact that tuberculosis is produced when the material in question is injected into guinea pigs. Finally, non-acid-fast organisms can be demonstrated in pure acid-fast cultures

by a modification in the ordinary methods of staining and decoloration.

This pleomorphism of *B. lepræ* is here presented merely as a philosophical discussion of the subject. So far, this has received merely a theoretical consideration, because absolute facts are lacking or not sufficiently observed, but, when known, in all probability they will constitute the basis for a better understanding as to the transmission of leprosy.

IV. Bacteremic Nature of Leprosy.—At the end of last year a case of leprosy came under our observation. The patient was from the South, age, about 40 years. The only appreciable lesions seen were slight redness, with thickening, in certain parts of the face, and two distinct lepra nodules on one side of the ear.

Smears made from the nose showed a few acid-fast bacilli; same results were obtained with blood smears from the nodule. Furthermore, blood cultures were made from the nodule on trypsinized egg medium. After some days' incubation, acid-fast bacilli were detected on the original cultures, and also on the second and third transplantation from the same.

At the beginning of this year, through the kindness of Dr. J. A. Kolmer, two lepra cases, now at the Municipal Hospital of Philadelphia, were placed at our disposal for study. Blood cultures made from lepra nodules, venous blood and peripheral blood from the finger, showed the presence of acid-fast bacilli resembling bacillus lepræ. These cultures, though impure, have been transplanted four times with successful results in so far as the reinoculated tubes show the organism in question in association with other bacteria.

Finally the blood samples were taken from the nodule, the finger and great toe. The latter locality was preferred in order to eliminate any possible contamination of the finger from the nose, through scratching of the nodule, etc. About 0.1 c. c. to 0.2 c. c. of blood was removed and immediately mixed with about 5. c. c. of a 2 per cent acetic acid solution. After thorough shaking and complete solution of the erythrocytes, the mixture was centrifuged and the sediment stained for acid-fast bacilli.

The result is very interesting. The presence of the acid-fast bacilli, resembling *B. lepræ* in their grouping, and more especially the finding of lepra cells, filled with acid-fast bacilli, is an evidence, we believe, of the presence of bacillus lepræ in the circulating blood in cases of leprosy, more especially since, not uncommonly, these

acid-fast bacilli were found phagocytized by some lymphocytes and endothelial cells, this is another proof of the favor of the bacteremic nature of leprosy, because this phagocytosis can be interpreted only as taking place in the circulating blood, or, at any rate, inside of the blood vessels.

The question naturally arises whether these acid-fast organisms were not present in the material used for the solution of the blood; certainly they were not. We have centrifuged our acetic acid solution, and the scanty sediment spread on slides previously prepared with a film of albumin and stained for acid-fast organisms; the albumin above was treated in like manner; finally the blood of one of the writers was tested as control. In each case, in the water, in the albumin and in normal blood, acid-fast structures are found, if looked for long enough; they are, however, very few. Most of them are what we call acid-fast amorphous masses, and though bacillary types were occasionally encountered, these were very few, and in no case were they found in the form of lepra cells, phagocytized by the lymphocytes.

The Detection of Cholera Bacillus from Feces and Water in Twenty-four to Forty-eight Hours.

By D. RIVAS, Ph. D., M. D., and ALLEN J. SMITH, M. D., Sc. D., LL. D., Philadelphia.

Of the different methods leading to the detection of cholera bacillus in suspected samples, two specially may be mentioned. The one consists in the plating of the suspected material in proper dilutions, in plain agar or in litmus-lactose-agar; incubation of the plates for twenty-four hours at 37° C., and the examination of the suspected material at the end of this time. The final results, consisting in the inoculation of the purple-blue, or bluish colonies resembling cholera bacilli in appropriate media, such as bouillon, agar, gelatin, dextrose bouillon, etc., for the determination of the cultural characteristics of the organism in question.

The other method consists in inoculating into a 1 or 2 per cent sterile peptone solution, and the incubation of these inoculated tubes at 37° C. for about twenty-four to forty-eight hours, at the end of which time the characteristic growth of the cholera bacillus is shown by the tendency to form a pellicle or slight veil on the surface of the culture.

This tendency to grow on the surface is due to the aerobic property of the organism, and based upon this the further research consists in taking a small sample from the surface of the culture and the inoculation of the same in different media as above stated, for the determination of other cultural characteristics.

Briefly stated, the chief cultural characteristics upon which identification of cholera bacillus is based are the following: Motile, comma-shaped bacillus, non-spore-bearing and Gram negative. Gelatin is readily liquefied, does not ferment; dextrose reduces the nitrates to nitrites, etc. One important feature, however, in the research is the cholera red reaction, which is obtained by the addition of a few drops to 1. c. c. (according to the bulk of the culture) of a 50 per cent solution of H_2SO_4, with which a distinct coloration is obtained without the addition of nitrite solution, as usually done for the indol reaction.

As readily understood, the above methods require two or three days, or perhaps more, for the detection of the cholera bacillus, and with the object of shortening the time as much as possible we have carried on some investigations along these lines.

In one of our previous works we have been able to obtain very characteristic indol reaction in bacterial cultures in the short time of six hours' incubation at 37° C. This has been accomplished by using trypsinized peptone bouillon instead of plain bouillon. (Reference to this work will be found in the *Centralblatt f. Bact.* of this year, *Bund* 63.)

Based upon the favorable result obtained on the production of indol with trypsinized peptone bouillon, our method can be briefly described as follows:

The suspected material is plated in proper dilutions on litmus-lactose-agar, and incubated for eighteen hours at 37° C. At the end of this time the suspected bluish-purple colonies are inoculated in trypsinized peptone bouillon for six hours, and at the end of this time the cholera red reaction is applied. If found positive, this can be regarded as good evidence that the material examined contained the cholera bacillus, or at least such a case is strongly suspicious, more especially when the morphology and tinctorial character of the organism are considered. So far, our research has taken twenty-four hours—that is, eighteen hours incubation of the plates and six hours for the determination of the cholera red reaction.

Should a more accurate result be desired, we recommend, as a

routine procedure before applying the cholera red reaction, to make further inoculations of the culture into gelatin, milk, dextrose bouillon, nitrate bouillon, etc., for a complete identification, which will require only twenty-four hours more of incubation of these cultures at 37° C. The complete identification is made, therefore in forty-eight hours.

Contribution to the Clinical Study of the Arterio-Sclerosis of the Heart.

By A. J. DELCOURT, SR., M. D., Houma, La.

The doctrine of arterio-sclerosis, as we conceive it to-day, is comparatively a modern acquisition. At any rate, it is the culmination of two centuries of medical speculation, coupled with painstaking and patient researches. To the successive generations of former clinicians and observers these lesions of arterial degeneration, which modern histology and pathogeny have so remarkably differentiated, were uniformly comprised, as to their objective symptomatology and their clinical manifestations, under the name of atheroma.

The great pioneers who have attached their name to that vexed problem—Senac, Corsivart, Laennec, Bouillaud, Hope, Corrigan, Heberden, Stokes, to cite only the most eminent among them—undoubtedly were profound observers, learned and sagacious clinicians. Unfortunately, they were betrayed by the scientific shortcomings of their times.

Hypnotized, as it were, by the outside appearance, and wrapped up in its contemplation, beyond the gross and palpable lesion, they could discern nothing. Neither was there any fault of theirs in not reaching at once the true nature of the trouble. Morbid anatomy, for lack of proper instruments of investigation, had passed it by. Clinical observation being as yet deprived of the methods now at our command, and not having learned to unveil the pathological secret lying behind these scattered lesions, originating under unknown agencies, and pursuing their work covertly and insidiously through the whole arterial system, clinical observation had failed to grasp the meaning and the ultimate destiny of these alterations.

And so, till at least four decades ago, atheroma was the univocal arterial degeneration lesion. As such, it crystallized in the medical language as the "vital rusting of the arteries," as Peter so picturesquely expressed it, and it gave rise to that aphorism of

Cazalis, not at all disparaging to the modern doctrine of arterio-sclerosis, "that a man is as old as his arteries." But at last the notion of specificity came up to renovate and to illumine that primtive and incomplete doctrine of degeneration. That specificity of morbid action, soon confirmed and fortified by the microbic doctrine, helped more than anything else to elucidate the pathogenesis of arteritis, endarteritis, periarteritis, and to explain the pathogenic influence of toxins and poisons of whatever origin, in the production of infective and toxic arterio-sclerosis.

Yet the most decisive and, let us add, the most fertile acquisition was that of Gull and Sutton, with their discovery of some kind of fibroid changes taking place in the arterioles and the capillaries, the arterio-capillary sclerosis, and their demonstration that the degenerative and atrophic changes initiated in and around the small vessels extend to the surrounding connective tissue and elements of the organs, embedding them, as it were, in a network of sclerotic tissue. It was thus definitively demonstrated that atheroma, the lesion of the large arteries, and arterio-sclerosis, the lesion of the visceral arterioles and capillaries, originate from the same cause, the same fibroid and degenerative change, atheroma being simply the outcome of arterio-sclerosis of the vasa vasorum of the large arteries.

Such is, in its broad lines, the history and the interesting picture of arterio-sclerosis, as it results from the most recent researches. As it is, it represents one of the most fertile concepts in the pathological fields; it opens, at the same time, a large vista on the nosogenic problem, appearing henceforth not only as a curable, but likewise as a preventable alteration.

In the same way as the microbic doctrine of the genesis of diseases has proved the starting point of, and the most powerful weapon for the prevention and the cure of diseases, so, what can not be expected from the notion and the sure knowledge we have gained, that arterio-sclerosis is the *primum movens* for the incipiency, the course and the termination of innumerable lesions, and that it sums up the pathogenesis of some of the most untractable organic affections, especially in their chronic forms?

In so specializing and localizing the morbid processes it still offers this other precious advantage that, instead of narrowing down our views of diseases, and, so to say, of crippling our practice, it has broadened our field and enlarged the scope of our useful interven-

tion, by showing that these various morbid conditions have their origin in a common and widely-scattered morbid agency, inherent either to some constitutional dispositions, which are both obvious and generally amenable to a judicious treatment, or, more often, to certain faulty habits, modes of living and occupations, which, under any circumstances, can be either modified, corrected or avoided.

Clinically speaking, and viewed in its manifold manifestations, arterio-selerosis, by its nature, evolution and ultimate consummation, obviously is a chronic trouble of nutrition, the cause of which is either concealed in the very depth of our constitution or originates through the agencies of life-habits and surroundings. Whatever it be, its aptitude to create trouble covers generally a long period of years, and the disease it originates are of a chronic nature. But our knowledge of chronic diseases (those, especially, whose evolution is silent during a long period of their duration) is picked up piecemeal, so to say, from cases barely interviewed, seen for a while, and only for a while, at different periods of their progress and evolution, and under such varied circumstances that they can hardly be compared one to the other. Nevertheless, such successive and limited observations, in process of time, accumulate a large and varied amount of notions, and ultimately supply a tolerably complete and satisfactory clinical history of those cases.

Presently my purpose is a limited one. I wish only to call attention to some special features of arterio-sclerosis of the heart, such as have appeared to me through the clinical observations of many cases. I shall venture to discuss some points connected therewith. I hope my contribution shall not be entirely devoid of interest and usefulness, despite its apparent threadbareness.

A case that came under my observation not long ago will, among many others, typify in its particular features a whole class of such cases, with all their attendant and characteristic peculiarities.

It was that of a woman, about 64 years old. The case struck me the more that, at the first glance, it was evincing those striking signs which usually characterize the troubles of the central organs when they have reached their final stage of evolution. The face of that patient was dusky and anxious, with a peculiar expression of distress; the breathing was heavy and laborious; the pulse hard, bouncing, such as we describe the Corrigan pulse. Palpation revealed and percussion showed an hypertrophy, bearing mostly on

the left ventricle. Auscultation revealed at the base of the heart exactly, at the aortic focus, two murmurs perfectly audible, the first one harsh, rasping and long, corresponding to the systole of the heart; the other one short, whiffing, almost musical in tonality, and, linked to the first one without a pause or an interruption, coincides exactly with the diastole. Here, then, we have met with two distinct endocardial murmurs at the aortic focus—one systolic, the other diastolic—conveying to the ear the exact and well-defined sound of to and fro. If we auscultate at the apex of the heart we hear another murmur, coinciding with the systole. The auscultation of the right heart reveals nothing particular. Once in possession of these data, we are already enabled to draw some conclusions. The diastolic murmur of the base means aortic regurgitation. As to the systolic murmur at the same focus, it may result either from a contraction or of a dilatation of the ascending aorta, with atheromatous productions on its walls, these last lesions being commonly met with in old age, the discussion of this point is of absolute necessity.

The percussion along the tract of the ascending aorta shows most conclusively the existence of a large expansion of that segment. At the same time, the elevation and the visible beating of the subclavian artery, and the hardness of that vessel to the touch, bear testimony to its atheromatous condition, which condition can be detected all over the arterial system. The stethoscope applied on the same aortic tract gives evidence of a harsh, rasping murmur, the meaning of which is obvious. As to the systolic murmur at the apex, it is due to a mitral regurgitation, and we shall see later on that such lesion is a secondary result of the aortic insufficiency.

To sum up, our patient is suffering from aortic regurgitation, with atheromatous dilatation of the ascending aorta, together with a regurgitation of the mitral valve. The aortic lesion is the dominating one. The first in date and importance, it forms the first link of the patological chain; it is responsible for the hypertrophy, and then the dilatation of the left ventricle, and the following inocclusion and regurgitation of the mitral valve.

I was pointing out the peculiar aspect of distress evinced by my patient. The fact is that, aside from the trouble caused to her breathing by the hypostatic congestion of both lungs, she is still tormented by the continuous pangs of angina pectoris, which at times causes her the most excruciating pains. The lower extremities

and the abdomen begin to show the traces of infiltration; and the urine, scant and highly colored, contains quantities of albumen. Reduced to those terms, the clinical history of this patient is sufficiently complete, as far, at least, as the gross symptoms are concerned. If we were still living in those days where the diagnosis of the affections of the circulatory system was confined to the study of the lesions of the central organ, nothing more could be desired nor looked for. But those times are happily gone by, and we have been taught to look beyond, far beyond the valvular lesions, whatever they may be. Decidedly, we must look for something else, or else our diagnosis falls short, and with it our supreme object—the prevention, the postponement of further troubles, and the cure, whenever it is possible.

In fact, there are two different ways of suffering from aortic insufficiency. One may have simply an endocardiac insufficiency, this one localized and materialized in the valvular alteration, and the endocardiac lesions sums up the whole trouble. In those cases, the angina pectoris is absent, and we shall see further on why it is missing. In the second form of aortic insufficiency, which we may call arterial insufficiency, the whole, or at least the most part of the arterial system, is diseased, and the general alteration of the arterio-sclerosis dominates the valvular lesion. Such is evidently the condition of our patient, and, looked upon in this way, all her present clinical history is as clear as broad daylight.

As to that part of her clinical history which I should willingly call the silent part—that which, traced back to more than twenty years ago, betokens its existence by some accidental dyspnea following upon more or less active exercise, or by some other momentary discovery—we know nothing about it, and, as in most of the same cases, we are reduced to a mere conjecture. What we know most positively is that she never suffered with rheumatism nor with any other systemic trouble that might have affected the endocardium.

When we come to investigate the history of such a case as this it is clear that many links are missing in this pathological chain, and that, from the first manifestation of unsoundness of heart and kidneys, to the general blocking and breaking down we are confronted with to-day, there is obviously a long period through which the general functions must have betrayed, by unmistakable signs, their abnormal condition, their insufficiency; and this is the more important to notice, because it is during that intervening period

that the therapeutic intervention, and still more the dietetic treatment, is able to accomplish some good. It is not in one day nor in one month that the lining membranes of the heart and arteries have been beset with atheromatous deposits, and that the myocardium has been invaded by sclerous or other degenerative changes. It is precisely this contingency of pathological accidents that makes us feel more imperiously the need for early and timely knowledge of the impending troubles, of their natural sequence, of their truly exciting and predisposing causes.

Happily, clinical observation puts us in possession of a precious sign—we might call it a danger signal: It is the high tension developed in the arterial system, such an increase of blood pressure being not only contemporaneous with the incipient arterial degeneration, but, in some cases, if not always, hypertension, according to Huchard and others, would precede the usual manifestation of arterial atheroma. Once the sphygmomanometer has revealed such persistent and notable high tension, or, as we call it, hypertension, we must be prepared for the development of further troubles, the meaning of which is at once obvious and threatening. Coupled with various bodily symptoms and discomforts, whose succession marks to the observer the progress of the arterial degeneration, be it atheroma or arterio-sclerosis, there soon appears, to the least experienced, such a display of material alterations and of clinical and organic troubles that the physician is forcibly and timely reminded not to let pass by the golden opportunity of useful intervention, both preventive and curative.

Unfortunately, either the condition of a patient has been overlooked by the unaware, or else the case comes only under observation when it is beyond the reach of possible and helpful treatment, the lesions having reached an irreparable state. And such is the case of our patient. She has been, maybe for fifteen or twenty years, attending to her occupations without much trouble, at least apparently. How is it, then, that during such long time, her affection has been silent, as it were, and that it came gradually to manifest itself by such striking and fearful troubles?

The question and the answer thereto hold good for all such cases, and it is worth while to answer it.

The compensation of cardiac lesions, be they valvular or arterial, takes place through some processes of accommodation whereby the heart, either through the hypertrophy of its walls, the enlargement

of its cavities, and more generally through both agencies combined, with the coöperation of some adjacent organs, is enabled to perform its functions almost normally and adequately. But, however perfect, that compensation of the cardiac lesions is only temporary. The artificial equilibrium, whereby an almost normal circulation is kept up, may last for years, but it is bound to get disrupted by the process of time or of intervening circumstances, or yet, under the strain and the daily wear and tear of life, ultimately to break down. This is fatal. The muscular tissue of the heart, suffering in its nutrition, undergoes a regressive transformation, generally a fatty degeneration, or at the most a sclerous one, and when this secondary alteration, whose importance Paget and Stokes have so much dwelt upon, has sufficiently extended, encroaching upon the heart's intimate structure, the ventricle, although more capacious, and apparently hypertrophied, but at the same time generally dilated, is at last vanquished, and succumbs under its task. Being destitute of the necessary amount of contractile elements to meet the excessive work imposed upon it by the central and peripheric lesions, the propulsive force slackens gradually, the venous system gets overloaded through the inversion of the normal pressure, and with it, and through it, all the accidents so familiar to the clinical student are given full sway.

But we have found that our patient was suffering with very painful attacks of angina pectoris, chiefly from very severe retro-sternal pains, which at times are almost unbearable. How is this symptom of angor so strikingly associated with this particular case? This is the question we want to answer, as one of most capital importance. The heart depends for its nutrition on the blood supply derived from the coronary arteries, and, strange enough, the maximum of repletion of those vessels does not coincide with the systole of the ventricle. When the blood is forced through the aorta by the ventricular contraction the stream is almost perpendicular to the opening of the coronaries, and these arteries barely receive a small portion of that blood. During the diastole, everything combines to insure a copious irrigation of the heart: the sigmoid valves are reversed down, and the recurrent stream, dammed back by those valvules, finds no other outlet than through the coronaries, widely open to receive it. The repletion of these arteries is now complete. Such being the mode of normal nutrition of the heart, it is easy to perceive what perturbation the aortic regurgitation will bring about.

A portion of the aortic stream runs back in the ventricle during the diastole, thereby cutting, by so much, the direct supply to the coronaries, and, besides, the regurgitation lessens the energy of the vis-a-tergo, which is the *primum movens* of the blood through the coronaries. Thus it will be seen that the aortic regurgitation has a twofold effect—the heart gets less blood, and what it gets is under lowered pressure. Its nutrition begins to be impaired, but this impairment is still intensified through the stasis in the venous and the interstitial systems, thus stopping, or at least lessening, the normal exchange of materials, which is the ultimate design of nutrition.

Investigating the muscular tissue in a general way, Bilroth has already demonstrated its tendency to undergo a sclerous degeneration, whenever its nutrition is impaired, and some subsequent observations of Traube have confirmed these data as to the heart. It is not, then, a purely fatty degeneration that takes place, as Paget and Stokes used to believe and to teach, but rather a fibro-fatty transformation.

Such is the genesis, the progress and the ultimate consummation of the cardiac dystrophy under the most usual circumstances. But oftentimes another element supervenes to intensify again this dystrophic metamorphosis, and to complicate it with this most of all dreaded troubles, the angina pectoris. I am alluding to coronaritis. When, in 1768, Heberden wrote his "Commentaries on the Theory and Cure of Diseases," and left such a wonderful and vivid picture of angor pectoris, to which he attached his name, many a doubt could be entertained as to the exact causality of that dreadful trouble. Himself, in his admirable ingenuity, was appealing to the time and to the attention of future scientists to solve that problem. The great trouble was that in those days angor pectoris was clinically considered as a morbil entity, and this clinical error has been persisted in until not so long ago. Clinical observation, however, shows us conclusively that the trouble is composed of two different elements—a constant and fundamental one, "the circulatory trouble," and another one, which may be absent, "the pain." And so it came about that, for so long a time, anginose phenomena were mistaken for true angor pectoris.

Already in 1883 Henry Huchard, in an epoch-making memoir, laid down the justified distinction between those pseudo-angors, those anginose pains, originating in the inflammation of the cardiac

plexus, pneumogastric irritation, or from some more or less distant organs, and the true angina pectoris. This one is clinically and entirely different, because, insidious in its evolution, dreadful in its consequences, it is marked by that silent, fatal and inexorable character peculiar to the cardio-arterial affections.

Let us see what is the pathogeny of the arterial angor pectoris, the one which Parry, conscious of all its dangers, used to call syncope angens. Its physiology, one hundred years old, chiefly consists in the ischemia of the myocardium; its termination in a syncope, its anatomy in an alteration of the coronary arteries. In the name of the clinical, physiological and anatomical observation, we are thus justified to rank it among the arterial cardiopathies; and while associating the cardiac ischemia with coronaritis, we are justified in this conclusion by the hundreds of *post mortem* examinations in which coronaritis alone, and more often associated with sclerotic dystrophy of the myocardium, could be identified as the morbid witnesses of those cases.

Aside from the anatomical fact, here is the physiological one, the functional or the organic narrowing of the coronary arteries, as brought about by arterio-sclerosis, and going sometimes to the extent of a complete occlusion through parietal alterations. And thus we are summarily called back to the association of coronaritis with angor pectoris—that is, with cardiac ischemia and muscular dystrophy; and herein we find the cause of the anginose and syncopal pains our patient has been subjected to, and which threaten her with such ominous results, at a more or less distant period, because, behind the pain, we dread the fatal syncope, the syncope angens of Parry.

Now, this very important question of pathology would be left entirely in the dark, as far as the nosogenic problem is concerned, unless we proceed one step farther, and we lay down the fundamental division that applies to the study of cardiopathies. In a clinical point of view, a fundamental division needs to be established between valvular and vascular or arterial cardiopathies, the last ones having the heart for seat and the arteries for origin. These last ones always assume, from the beginning, some very important vascular symptoms, namely: an increased arterial tension arising from the spasmodic contraction of the vascular system. There is always to be found, too, at a given period of their evolution, an accentuation of the second aortic sound, with an hypertrophy of

the left ventricle. Their evolution, moreover, proceeds through different periods:

1. The pre-arterial period, characterized by the permanent increase of the arterial tension without any vascular lesions.

2. The cardio-arterial period, with endarteritis of the peripheral vessels at first, and of the viscera and the myocardium afterwards.

3. The mitro-arterial or hyposystolic period, characterized by a diminution of the arterial tension, coupled with the troubles similar to those of the valvular cardiopathies insufficiently compensated.

Henry Huchard, than whom no one has done more to rationalize, so to say, the pathology of heart affections, after numerous personal observations, believes himself justified in describing several types answering to the principal modes of clinical evolution of these vascular cardiopathies, viz:

1. A pulmonary type, with dypsnea, more often vesperal, paroxystic, assuming often the type of Cheyne-Stokes, or with symptoms of pulmonary congestion.

2. A painful type, with typical angina pectoris or with attacks of pseudo-gastralgic angina.

3. An arythmic type, either paroxistic or permanent.

4. A tachycardic type, oftentimes mixing with the arhythmic .

5. An asystolic type, characterized by the suddenness of the symptoms, which assume the form of acute attacks of asystoly, sometimes by a permanent asystoly, which would very easily be taken for a valvular asystoly. These asystolic attacks, originating under the most trifling cause, belong strictly to the arteriosclerosis of the myocardium. The other symptoms, angor, dypsnea, syncope, might belong as well, or accompany an attack of sub-acute or chronic aortitis. Undoubtedly those different types are originated by the varied associations of the vascular lesions, either of the heart of or the viscera, myocardium, aorta, kidneys.

Now, how to account, more particularly, for those arythmic attacks which, at times, become so excessive as to justify the name of ataxia of the heart? To those who hold that the rythm of the heart motions and contractions is, in most part, a property and a function inherent to the cardiac muscle, it is easy to explain how arythmia follows up alterations of the myocardium. Huchard considers, as immensely more frequent, the arythmia of a myocardic origin than that of a nervous one. In fact, many a case considered as a nervous trouble of the heart, must be otherwise explained. He

does not deny, for instance, the action of tobacco on the pneumogastric; but he contends that much more account is to be taken of its vasoconstrictive and ischemic action, in the production of arythmic troubles. And still more, those troubles must make their apparition in the course, or even from the incipient arteriosclerosis, of which, for a long time, they remain as the sole and the most important manifestation. A peculiarity of this arythmia is that it is very seldom felt by the patient. It differs considerably from that following upon mitral regurgitation. In this last case, the heart irregularities being caused by the oscillations of the column of blood from the ventricle to the auricle, during the systole, there appears at first a murmur at the apex, and the succession and the regularity of the cardiac motions is almost perfect. It is only much later on, that arythmia manifests itself.

In the arythmic form of arterio-sclerosis it is just the reverse. The arythmia begins, and the systolic mummur at the apex comes on much later, being contemporaneous with the dilatation of the left ventricle and of the mitral orifice. This murmur, symptomatic of functional insufficiency of the mitral valve, presents some peculiar characters: It is generally soft: But at times the diagnosis between a mitral affection and the arythmia of arterio-sclerosis is so difficult that some authors, among whom Rulhe and Riegel, went so far as to say that the clinical aspect of diffuse myocarditis is not altogether different from that of an uncompensated valvular lesion. Many cases of daily occurrence are not made to discountenance such a statement. Nevertheless, acting upon such data, it will often be possible to deduce, from the chronologic order of succession or precession of the arythmia and the murmur in both diseases, some precious diagnostic elements, by bearing in mind the following facts: murmur first, and then, afterwards, arythmia in the mitral affections. Arythmia first, and then, only afterwards, functional murmur in cardio-sclerosis.

Before concluding this already too long communication, I wish to produce a last observation, which will add another touch to the pathologic picture of arterio-sclerosis of the heart, by showing the progressive and fatal link that connects it with the arterio-sclerosis of the kidneys, producing the cardio-renal form.

A friend of mine, about fifty years old, of habitually fine physical appearance, but become of late of an extreme paleness, consulted me for paroxysmal attacks of dyspnea occurring under trifling

physical exertions, and recurring at night with such a gravity, as to prevent sleep. He was complaining at the same time, of anginous pains, assuming at times a suffocating form.

The auscultation of the heart reveals a harsh, long, rasping murmur, extending upwards along the aorta. A *bruit de galop* is perfectly audible, without any elevation of the subclavian artery. The urine is scant and red, but no trace of albumen. My first duty was to put the patient strictly on a milk diet, with entire suppression of any other food. All medicine was withheld in the meantime. In less than four or five days, the dypsnea had disappeared; the sleep, that heretofore was greatly disturbed, became sound and natural, and the patient felt like another man. The improvement seemed very distinctly to keep pace with the restoration of the urinary function, which, on the third day, was copious, clear, and remained so.

Now, what is the nosogenic meaning of all this? It appears to me that the dyspnea was of an uremic cause, applying to uremia the meaning of kidney insufficiency. Uremia is a complex intoxication, resulting from auto-intoxication through different substances, as the fact was so well demonstrated by Bouchard twenty-five years ago. The various toxic substances manifest their action by specific effects, and the intoxication resulting from the ingestion and the digestion of aliments, cannot be mistaken for that of uremia. Obviously, the toxy-alimentary dyspnea (to give it its pathogenic name) makes a part of the kidney insufficiency, but it is a symptom and a trouble of the first hour, preceeding, by a long time, the accident of true uremia. There is consequently such a thing as a toxy-alimentary dyspnea, claiming alimentation as the primum movens. The best proof is that, in such cases, the more we eat meat, the more the dypsnea increases, while it disappears with a strict milk diet. And such marked improvement generally requires but 3 or 4 days for its accomplishment.

Our patient is suffering from a nephro-sclerosis, causing an insufficiency of the kidneys; this lesion, which is no longer latent, is revealed by the existence of this toxy-alimentary dypsnea and the *bruit de galop.*

This patient will live that way for months or years, and then at last, the heart will be affected; the cardio-renal form of arterio-sclerosis being the usual conclusion of those morbid histories.

A fact, however, which in the present case, tends in no small

degree, to make the condition more threatening and precarious, is the atheromatous condition of the aorta. As long as there is no aortic regurgitation, the case, under favorable circumstances, may go on for a long while, without causing much trouble. But, as we have said before, our patient was already suffering from occasional pangs of angina pectoris. To those who claim, as we do, that the true angina pectoris has its chief cause in the constrictive degeneration of the coronary arteries, the existence of anginose pains, however transient and bearable they may be for the time being, is none the less an ominous symptom, and one pregnant with great danger, not only as to the angor pectoris itself, but as to the nutrition of the myocardium.

Less than one year later, and as a realization of our apprehensions, my unfortunate patient, disregarding my dietetic regulations, after partaking of a hearty supper at home, felt suddenly worse, and succumbed, in a few minutes, to an attack of angina pectoris.

During the last year of his life, uremia, with all its cortege of concomitant accidents, had made frequent appearances, usually mitigated and kept at bay by appropriate treatment, especially milk diet and cures of dechlorination.

Had not angina pectoris so abruptly closed the scene, the cardio-renal complication, as is always the case under such circumstances, would have gone to its fatal termination at no distant day.

Non-Poisonous Anesthesia of Mucous Membranes.*

By OTTO JOACHIM, M. D., New Orleans.

Those of you, who have ever met with the misfortune of losing a patient from the use of a general anesthetic, when given for operation of less than life-saving importance, need no special pleading on my part in advocacy of local anesthesia, where such can be used with certain efficiency and without danger. To those who have been fortunate never to have lost a patient from anesthesia, the sad experience of those who have should prove a caution and a warning, and this warning would assume far greater proportions were all the cases of death from general anesthesia published. The propor-

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

tion of fatalities from this cause may be as the text books give it or even less when given by such competent anesthetists as we are fortunate enough to have at our disposal in this and other large centers, but I am satisfied that the aggregate of published and unpublished statistics far exceeds the percentage usually given.

The recognition of these facts has long ago led to development and successful use of local anesthesia, and the method of its application has been materially improved by the members of our society for the purposes of general surgery, and it gives us pleasure to acknowledge the progressive work along these lines by Prof. Matas and Dr. Carroll Allen.

An effective local anesthesia of the mucous membranes, one that is practically free of danger, presents certain problems of its own. It has always been possible to produce a surface anesthesia, sufficient for all purposes and free from danger of cocain poisoning with cocain solution or cocain adrenalin solution of varying strength, according to the effects desired. For anesthetizing the structures underlying the surface for operative purposes, we have been always compelled to use cocain or cocain solutions in quantities amounting to the maximal dose and very frequently exceeding it. You will hear, and I can give you for myself the assurance that no death due to cocain poisoning has been personally observed. The literature on the subject attests to a number of such fatalities.

Fortunately, we now possess such agents for the production of local anesthetic effects, which are far less poisonous than cocain, and at least equally efficient. From personal experience I can assure you that on the mucous membrane of the writer's nose a far pleasanter, more efficient and more lasting anesthesia can be produced by the use of a 20 per cent alypin adrenalin solution than by a 20 per cent cocain adrenalin solution. The agents, to which I wish to call your attention, are novocain and alypin. The chemistry of these substances is at this time of no special interest to us. The addition of adrenalin acts as a synergetic and ischemic. They are not, as cocain is, ischemic or vasomotor. Of determining influence upon our choice for agents for local anesthesia is the frequent necessity for sub-mucous injections of such agents. If we have at our command a relatively non-poisonous local anesthetic of equal efficiency as, or better than cocain, we are free to use it in greater quantity and surer to produce the desired result. If we inject, for instance, in the removal of both tonsils, 5 c. c. of a one per cent

cocain solution, we already have reached the maximal dose. A larger quantity than this will often have to be used for effective anesthesia.

In doing this we are entirely too near the danger line. If, however, we use a novocain adrenalin solution of even double the strength, we can use several times this quantity with impunity. Aside from the danger we are running by the use of cocain adrenalin solution, we rarely produce in our patients, when we use the relatively non-poisonous preparations, the symptoms of temporary collapse, oppression of breathing and an over-stimulation of the heart centers. The operator's mind is certainly far more at ease. On the contrary, a 20 per cent alypin solution will produce a hyperemia of the mucous membrane. It is, therefore, of essential and of utmost importance to add to these agents a relatively greater amount of adrenalin or suprarenin than we are usually adding to cocain. To a 20 per cent solution of alypin, 1-5 in vol. of a 1-1000 adrenalin or suprarenin solution should be added to produce a thorough anesthesia anemia of the mucous membrane; for weaker solutions a lesser proportion may be used. For sub-mucous resections of the septum I add 15 drops of 1-1000 adrenalin solution to four drams of a 2 per cent novocain solution and this is sufficient to produce, if properly injected, a painless and bloodless field for operation. It is sufficient to say that conversation, aside from the topic of operation, has repeatedly been carried on by the patient during the operative procedure.

Braun, who has investigated the relative toxicity of cocain and novocain thoroughly, tells us that novocain adrenalin or suprarenin solution possesses about 1-10 the toxicity of cocain. One may use 25 c. c. of a 2 per cent novocain adrenalin solution to come within the danger zone of 5 c. c. of a 1 per cent cocain adrenalin solution. This ought to make clear the difference of their relative danger, both being of equal efficiency. Alypin is 1-3 to 1-4 of the poisonous strength of cocain, and if adrenalin solution is added is, in my experience, in solutions of equal strength more efficient than the cocain solution. Another great advantage of the use of these solutions is the fact that these solutions may be boiled and rendered sterile, with certainty, just before using. When this is done the adrenalin solution might be added after cooling of the boiled solution. Cocain and adrenalin solutions do not possess any activity after boiling. I do not know if you share the feeling of distrust

and apprehension which came over me when I was handed a stock Schleich's solution for infiltration purposes. I have long since preferred to bring my own solution and boil it before injecting. Experience has proven that the use of a 2 per cent novocain adrenalin for membranous work and 20 per cent alypin adrenalin solution for surface anesthesia are the most advantageous methods of use.

The possibility of using, without danger, a large quantity of a solution producing an effective local anesthesia has in a measure widened the field of our activity in the nose, throat, and about the ear, and makes operative procedures which we could not do with the same degreee of thoroughness nor with the same freedom from pain or distress to the patient unless we employed dangerously large doses of cocain solutions or resorted to general anesthesia.

For the removal of tonsils in adults this method is particularly applicable: In the nose, for surface anesthesia, 20 per cent alypin adrenalin solution is superior to cocain and 2 per cent novocain adrenalin injection is entirely adequate for all operations which can be done with local anethesia. I do not hesitate to include with such additional attention as the cavity itself may need, the Caldwell-Luc operation or the Ingall's operation for the opening of the frontal sinus or the Mastoid operation in certain conditions or laryngeal operations.

Another point of importance is the necessity of waiting 6 or 8 minutes after injecting the solution before beginning to operate. This is somewhat longer than we usually wait when we use cocain solution. The success of this method also depends somewhat upon the use of the proper needle and syringe. The best syringe I have found is the record syringe and the needle has a point similar to the needle used for spinal analgesia. That is, the point is cut much shorter than the usual hypodermic needle and is less liable to penetrate the mucous membrane beyond the point of introduction. I beg to show you the needle used for sub-mucous nasal anesthesia and the one used for tonsil work.

To attain the desired result it is not only necessary that the solution used be made up properly, but it is essential that it be injected into the right place. The criterion of this part of the procedure is our knowledge of the distribution of the sensory nerve supply of the region we wish to anesthetize. We should attempt to inject, whenever it is possible, into or around the nerve trunk which supplies the parts.

In the field of car, nose and throat diseases this method has been worked out with great refinement and precision, and has been applied successfully in all but the more serious operations. The proper points of selection for injection I will make the subject of a subsequent paper with anatomical demonstration.

Discussion on Paper of Dr. Joachim.

Dr. William Scheppegrell, New Orleans.—I have used cocain for many years in thousands of cases, and I have never had a serious effect, and very often the fainting is simply psychic. However, wherever we use cocain, we first give a stimulant, either brandy or strychnia. Every now and then we find a patient who has an idiosyncrasy for cocain. If a patient comes to us after cocain has been used and he has had a severe reaction, it would not be conservative for us to use cocain again, where we can employ such a substitute with advantage as Dr. Joachim has described.

Another good effect of both of these agents is we do not contract the vessels, which is sometimes a disadvantage. A few years ago I was removing a polypus from the nostril in a case of hyperplastic rhinitis, and under the influence of adrenalin and cocain it almost disappeared, making it more difficult to remove it with the snare. In this case novocain and alypin would have been preferable.

Regarding the danger of sub-mucous injection of cocain for tonsilectomy, I now use the Schleich mixture. My assistant and I removed the tonsils of a patient a few days ago at the office. We used No. 3. Schleich mixture. We applied one hundredth of a grain of cocain, and one-tenth of a grain of morphin, and the patient insisted that he felt absolutely no pain. In this way we almost eliminated the danger of cocain intoxication.

Dr. Joachim (Closing):—It is always desirable to use a less poisonous substance when we can do so, and in these two agents we have substitutes for cocain, which has not been without danger. I have never had a fatality to occur from the use of cocain, but that does not make me feel that it may not occur. It is the same way with regard to general anesthesia. Those who have never had a death from a general anesthetic begin to feel it is the best anesthetic to use, but a death or deaths may occur to them sooner or later from the use of chloroform or ether. If we can use an agent like alypin, and thus avoid the maximum dose of cocain, it is better to do so. It is for this reason that local anesthesia has been developed in preference to general anesthesia in certain cases.

The Prevention of Deafness.*

By WILLIAM SCHEPPEGRELL, A. M., M. D., New Orleans.

Advanced cases of deafness form some of the most trying cases which come under the care of the aurist. The majority of such conditions, however, could have been prevented by comparatively simple methods, had they been taken in the incipiency of the disease.

The early attention, which is being given to diseases of the ear, has materially reduced the ratio of defective hearing, but daily experience shows that there is still room for great improvement in this direction. As an illustration of this, an examination was made some time ago for the Bureau of Education, of Washington, and 76 pupils of a total of 570 were found to be suffering from greatly diminished hearing, or nearly 12 per cent. The remarkable feature shown by this examination, however, was the fact that only one of these pupils had been recognized by the teacher as being deaf, and only 19 by the pupils so affected.

A large number of cases of deafness derive their origin from some condition in childhood, although the results may not be apparent for many years afterwards. Scarlet fever and measles are especially likely to affect the middle ear and cause deafness. The neglect of proper examination and treatment at this time may result in conditions which will impair the hearing for life.

One of the most common causes of ear affection in children is the hypertrophy of the pharyngeal tonsil, the so-called "adenoids." Located between the openings of the Eustachian tubes, which establish the equilibrium of pressure between the middle ear and the external atmosphere, this tonsil, if diseased, soon affects the patient's hearing. This may be due directly to the adenoids blocking the orifice of the Eustachian tube, or, indirectly by setting up a diseased process in the Eustachian tube and middle ear, in either case resulting in impaired hearing. The early and complete removal of the hypertrophied tonsil gives results which may justly be considered among the triumphs of special surgery.

While the effects of adenoids on the hearing is now fairly well recognized, the enlargement of the faucial tonsil, in this connection, is not so well understood. In the first place, a diseased faucial tonsil tends to produce inflammation of the epipharynx and the Eustachian tube, which will affect the hearing; then the palato-

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pharyngeal muscle, which is one of the muscles used in ventilating the Eustachian tube, is located in the posterior pillar of the tonsil, and hypertrophies, which affect these muscles, will consequently injure the hearing. These should, therefore, be given careful attention in our effortss to prevent deafness.

Unfortunately, a considerable degree of deafness may be present in children without being recognized by the parents or teachers, the defective hearing being often mistaken for inattention or even disobedience. This usually has a marked effect on the education of the child, as the difficulty in hearing may cause such fatigue that the child develops extreme nervousness from constant strain, or it may discontinue the efforts and become inattentive.

The auditory canal is not often concerned in serious defects of hearing. Any condition, such as an accumulation of wax, which offers an obstruction to the sound waves in reaching the drum will affect the hearing. Where this is the case, it should be removed with a warm alkaline solution and not by means of toothpicks, hairpins, ear spoons and other things which may infect the ear and produce serious inflammations. In one of my cases, a toothpick, used for this purpose, had punctured the drum, producing a suppurative inflammation, which only careful treatment kept from having a lasting effect on the hearing.

The middle ear, limited externally by the tympanic membrane and opening into the epipharynx, by means of the Eustachain tube, forms the seat of the most common affections which involve the hearing, and it is to this that our greatest efforts at prophylaxis should be directed. In normal hearing, the sound waves pass through the auditory canal to the drum and are transmitted by the means of the chain of ossicles to the oval window of the labyrinth, into which the foot plate of the stapes is inserted. In order to receive and transmit the sound vibrations without undue resistence, the drum membrane must have the same atmosphere pressure on each side, hence the object of the Eustachian tube is to maintain this equilibrium. Any condition which impedes the normal entry of air through this tube, interferes with the free action of the tympanic membrane, and consequently affects the hearing. If sufficiently prolonged, it may set up structural changes in the drum, ossicles and mucous membrane of the middle ear, and cause permanent injury to the hearing.

Diseased processes, in the majority of cases, are transmitted to

the middle ear by way of the Eustachian tube. In cases, however, in which the tympanic membrane has been ruptured through a suppurative process from within the middle ear or from other causes, the delicate mucous membrane of the middle ear is exposed to direct contact with the external atmosphere and pathogenic germs may find an entry in this way.

The prevention of deafness by maintaining a normal condition of the middle ears really means the establishment and maintenance of a healthy condition of the nose and throat. So intimately is the middle ear associated with these parts, that it is rare to find a diseased nose or throat of any considerable duration, in which an abnormal condition of the ear and a consequent defect of hearing has not developed.

It can readily be understood that diseased process may enter the middle ear through the Eustachian tube, by means of either the nose or throat, but it must not be overlooked that a nasal obstruction, a deflected or an enlarged septum may affect the ear. Perfect hearing implies a normal tension of the transmitting apparatus and a difference between the pressure of the air within the middle ear and the external atmosphere disturbs this normal tension. A nasal obstruction, by impeding the nasal respiration, tends to produce a negative pressure in the epipharynx and middle ear, and this by disturbing the normal tension, will affect the hearing.

Suppurative disease of the middle ear is a common cause of deafness, especially in children. Whenever there is earache and pressure on the drum, this should be closely watched and excessive pressure at once relieved by a free incision of the drum. With proper attention this quickly heals, and even where the rupture takes place spontaneously, the tympanic membrane will heal under proper treatment, although it is more injured by the cicatrix from an irregular rupture than from a smooth incision.

When such cases are neglected, however, the discharge remaining in the auricular canal becomes decomposed, offensive and a breeding place for pathogenic germs. These germs, entering the middle ear by means of the perforation, set up a suppurative process which may not only destroy the organ of hearing, but may enter the cerebral structure by means of the mastoid cells with a fatal result.

A "running ear" is frequently viewed with complacency by parents, and, in some cases, is even considered as an issue of some unhealthy secretions which should not be interfered with. To the

aurist it is a smouldering fire, which is gradually consuming the organ of hearing, and which may at any time set up a conflagration which is extinguished only with the life of the patient.

The most common cause of deafness in adult life is sclerotic otitis media, the so-called "dry catarrh of the middle ear." Pain is very rarely present in this disease and head noises do not usually develop until a late stage. It is insidious in its development, and so gradual is the loss of hearing that months and even years pass before the patient is aware that he is losing his hearing. Such a patient will present himself and state that he has noticed a difficulty of hearing for a few weeks, when the evidence is clear that there has been a progressive loss of hearing for several years. In such cases, so much harm has been done to the conducting apparatus of the ear, that it is difficult and tedious to affect much improvement, and a restoration of hearing is out of the question.

The inner ear is not often affected as compared with the middle ear and the question of prophylaxis of this region is quickly disposed of. A suppurative process in the middle ear may involve this region threatening danger not only to the hearing, but also to the life of the patient, and it should, therefore, never be neglected. Excessive doses of quinin tend to produce an injurious effect on the labyrinthine membrane and auditory nerve, which may produce permanent deafness. Luetic disease may also involve these parts and should not be overlooked in such cases.

Normal hearing, like other valuable gifts, is rarely appreciated until it is lost. In advanced cases of deafness, it is not only a great disadvantage, barring the subject from many vocations and enjoyments, but is also the cause of much unhappiness from a social standpoint. Every safeguard should, therefore, be placed around this valuable sense, and not only should early symptoms of ear diseases be given careful attention, but also affections of the nose and throat on account of their influence on the organ of hearing. When this shall have been done, it will not be many years before the present large ratio of defective hearing shall have been materially reduced.

Discussion on Paper of Dr. Scheppegrell.

Dr. Otto Joachim, New Orleans.—The paper is a clear exposition of the causes which lead to hard hearing in children and in

later life, and there is very little to be added to the clear statement which the author of the paper has made. An unusually large percentage of children, immediately after birth, or during the first few weeks after birth, have running ears. This is due partly to prenatal influence, and partly to inattention afterwards, and it is difficult to make a diagnosis because the child does not complain of earache or of pain until the attention of the nurse or the mother is called to it. When a child is affected with whooping cough, or with scarlet fever, ear trouble may be a complication, and careful attention should be given to the ears and to the nose. Both of these organs should be kept free, so that severe and far reaching complications can be prevented. We know that in other complications in connection with diseases of childhood careful attention given to the ears may prevent much harm to them and prevent much of the deaf-mutism which we see children are affected with after the disease mentioned.

The Importance of Prompt Recognition and Treatment of Laryngeal Diphtheria*

By G. C. CHANDLER, M. D., Shreveport, La.

Laryngeal diphtheria is chosen for discussion on account of its interest and importance to the general practitioner as well as to the specialist. It is one on which we are all more or less posted, but the profession is very prone to fail to make an early diagnosis, especially when the disease is not known to be prevalent. We are all impressed with the fact that it is contagious and when it is not prevalent, even if we suspect diphtheria and examine the throat, when we find no membrane, our suspicions are allayed and very often not again aroused until suddenly we are awakened to the fact that our patient is making a desperate effort to breathe. A great many country physicians think diphtheria is a town disease and are more prone to make this error than the city practitioner, but it is not confined to them by any means, for right in your city you find doctors treating children for bad colds, until suddenly they find intubation necessary and awaken to the fact that the child has laryngal diphtheria.

We should examine all sore throats for membrane, but failure to find it should not put us to sleep, for laryngal diphtheria rarely

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shows membrane in the throat, and even if you are able to see the larynx, you will often fail to find it and this is the form of the disease which gives the most disastrous results when not recognized, and gives the greatest satisfaction and most brilliant results when recognized and properly treated. If the physician is alert and uses antitoxin promptly, he will have very little use for his intubation set. If he is at all observant, the clinic history of these cases is so plain and antitoxin acts so promptly, it is almost culpable to have a case requiring intubation, unless it is necessary on his first visit, when he has a child with a cold with slight laryngeal obstruction that is gradually increasing even if there is a spasmodic increase, followed by freer breathing during relaxation following the attack. Do not deceive yourself in believing that it is true croup or wait for improvement, development of membrane or serious increase in the obstruction, but give antitoxin and usually in two hours you will notice an improvement in respiration, in four hours the improvement will be marked, and in 24 to 48 hours the membrane will be coughed out and your patient well. I have had this experience so often that for a time I believed any case having the antitoxin two hours before intubation was necessary, would never require it, but two cases following each other in rapid succession exploded this theory, though they may have resulted from the small dose of antitoxin used, an initial dose of only 3000 units being used in each case. I believe one of the cases would have required intubation even if the dose had been larger. Since then my routine practice has been to give children 5000 units. I know that much larger doses are recommended, but I have not found them necessary.

I will give a short history of these cases:

The first one was a child 16 months old, brought from the country, breathing was much labored, no membrane visible in the throat, but clearly a case of laryngeal diphtheria. Antitoxin was immediately given in my office at 4 p. m. At 1 a. m. child was intubated. It was like putting a stopper in the larynx, so the tube was immediately withdrawn with very slight improvement in the complete stoppage it had caused, so I immediately opened the trachea low down and it required a number 4 tracheal tube to give sufficient air, the inner tube of which had to be removed and cleansed very frequently to keep it open on account of the thick tenacious secretions. The child made a happy recovery, but had paralysis of the adductor muscles of the larynx, requiring the retention of the tube for six

weeks when the paralysis passed off and the tube was removed. After the diphtheria was cured, a No. 1 tube was substituted for the large one and used until the paralysis passed off.

The second case was my own child, two years old. He apparently had a bad cold when I noticed a slight effort in breathing, so, fearing laryngeal diphtheria, I gave 3,000 units of antitoxin. In spite of this, the obstruction increased so rapidly that he had to be intubated in twenty hours, though intubation was delayed as long as possible for I expected the membrane to come away at any time from the antitoxin that had been given. Twelve hours after the intubation, he coughed up the tube and membrane, sat up in bed and said: "The wistle's broke."

In laryngeal diphtheria a small membrane can cause such a serious condition, that usually long before the system has become thoroughly poisoned by the disease with its resulting weak heart and other complications, the patient is in a desperate condition simply from lack of air, so when the condition is relieved and antitoxin given, the result is simply magical, for the patient is practically cured in 24 hours.

A few months after graduating, before the use of antitoxin, I was convinced for all time that membranous croup was diphtheria and that diphtheria did occur in the country with no known exposure or infection. A child 15 months old, living eight miles from town, that had not been away from home with no known diphtheria in town or country, was seized with membranous croup, which at the time convinced me that membranous croup was not diphtheria. Twenty-four hours after the first symptom of obstruction a low tracheotomy was performed which temporarily relieved the condition, but the membrane gradually came down until it filled the trachea below the incision and the child smothered to death. The proof that it was contagious soon came, a cousin of the same age, whose mother assisted in nursing the first case being seized in the same way and smothered to death. If we had had antitoxin, the first case would have been cured, for on opening the trachea, there were no evidences of systemic poisoning, and there was plenty of time for antitoxin to have done its work before the membrane formed below the opening of the trachea. The second case would have probably not occurred and had it done so, would have been cured. No membrane appeared in the throats of either of these cases and they were the only cases that occurred.

The operations of tracheotomy or intubation are not dangerous per se, but with the weak heart resulting from thorough systemic poisoning from diphtheria, the excitement and struggle of the little one during intubation, may result in stoppage of the heart and death. Ever since I was called to examine a twelve-year-old girl who sat up in bed without assistance and before I could examine her, fell over dead, I have performed these operations with uneasiness, and in two cases with cause, both died not from lack of air entirely, but from heart failure. Ordinarily in these laryngeal cases where the membrane appears first in the larynx, which necessitates the call for a physician promptly before the heart has become involved, I believe these operations, when carefully performed, are entirely free from danger, but no physician is justified in standing by and seeing his patient smothered to death because he thinks he is too late to do any good. Remember one thing: You are never too late to intubate or open the windpipe. I have opened the trachea after the patient was dead, hoping there might still be some action in the heart. If you will adopt this policy, you will make some marvelous cures.

I wish to tell you of two cases that were instructive to me and may be of benefit to you. During the excitement from the deaths from impure serum in St. Louis, a child 16 months old was seized with laryngeal diphtheria, two physicians were called consecutively and retired from the case because the parents refused to allow the use of antitoxin. A third one was called in who called me in. The child, from exhaustion, had about ceased to even attempt to breathe, the only effort being a feeble gasp at long intervals. The attending physician and I believed that intubation was useless, but it was done, the air rushed, the child went into sweet sleep, only partially awakening on the administration of the antitoxin, and in 24 hours he coughed up the tube and membrane, apparently cured, for he did not have another symptom to cause the least uneasiness. Three brothers living in the same room had pharyngeal diphtheria and recovered with the use of antitoxin. Another case I wish to present you, for it shows how easy it is to make a mistake in these laryngal cases, even when you are on your guard. A child with a paroxysmal laryngeal cough was sent me by the family physician because the parents feared diphtheria. A cousin had died several months before with the same disease, though this child had never been exposed. I examined the throat carefully every day for membrane for a week

without finding any, so I finally decided it was a case of whooping cough, which was then prevalent, and returned it to the family physician with the request as a matter of precaution to let me know of the slightest signs of labored breathing. A week later I received a message to come at once, the child was smothering to death. The difficulty in breathing had been noticed three days before, but regardless of my request, had excited no alarm. When I reached the case with the family physician, he thought intubation would be useless, and anyone who had never seen the magical results of intubation would have been justified in the belief. The introduction of the tube was followed by the same results as in the case given above, except that it was 36 hours before the membrane and tube were coughed up. Had this case shown any obstruction in the larynx during the week I had it under observation, I would have given antitoxin, for the failure to give it promptly in these cases is so serious that I think we are justified in giving it before a positive diagnosis is made.

Of course, it is possible for the system to be thoroughly impregnated with the poison, with its damaging results, before the obstruction in the respiration calls for intubation, but in the vast majority of cases the trouble is, to a great extent, local, and, giving free respiration with antitoxin, will cure your cases without complications, apparently, twenty-four to forty-eight hours after treatment. The subject under discussion is one that could be drawn out to great length with much benefit, but there are others, so I will close with a resumé of a few things we should keep in mind:

(1) In laryngeal cases, don't wait to give antitoxin until you are absolutely sure that your patient has diphtheria. Give it, and make your cultures and microscopical examinations later.

(2) It is never too late to intubate or perform tracheotomy. Never let your patient smother to death. I was caught unprepared once, and had to borrow a knife that was so dull that, on reaching the trachea, it was almost impossible to get an opening into it. The patient got well. The only instrument on hand was this borrowed knife.

(3) Every country practitioner should always have on hand one or more packages of antitoxin. He is certain to need it some time, and it is like the Texan's gun.

(4) Where you have gradual increase to obstruction in respiration, unless the cause is clear, give antitoxin. I was called to a

case with a history of having swallowed concentrated lye, and the attending physician attributed it to that cause. I could see the larynx plainly, and found no membrane, but felt that it was diphtheritic, and gave antitoxin, which brought prompt relief.

(5) Do not be misled by the apparent improvement during the relaxation following the struggle from a spasmodic increase of the obstruction. Remember the membrane is still there, and will steadily increase until 95 per cent or more will die, unless it is stopped by the use of antitoxin.

(6) Do not mistake the absence of retraction of the abdomen, and the easy movement of the chest accompanying the exhaustion following the desperate effort, for an improvement in respiration. Put your ear on the chest and see if the air is entering the lungs.

(7) I cannot do better than give verbatim description of the symptoms, taken from Osler's System of Medicine:

"The attack begins with a hoarse, brassy cough, a moderate rise of temperature, and a certain feeling of lassitude. If the fauces are examined, no membrane in uncomplicated cases can be seen. At the end of twenty-four hours the dyspnea increases and the brassy cough is a prominent symptom. Thirty-six hours later there is a marked substernal and subclavicular retraction. The patient is extremely restless and starts up in bed, clutches at the throat and gasps in an endeavor to get air into the lungs. The wings of the nose will dilate and contract. Cyanosis now appears, and it is impossible for the patient to get any rest. The substernal retraction is extremely remarked in young children. In adults it is not as great, because the thoracic walls are so rigid that they prevent retraction to a certain extent. Supraclavicular retraction, however, is always present in adults as well as children. Rigidity of the sterno-cleido-mastoid muscles is always present in both adults and children; it is of great significance in the early stages of laryngeal diphtheria, and should always be a warning to the physician."

I think this is a wonderfully concise and graphic description of the disease, but you will often find the progression of these symptoms much more rapid than stated above, and remember it is not necessary or safe to wait for all of these symptoms.

Discussion on Paper of Dr. Chandler.

Dr. Arthur I. Weil, New Orleans: I think the doctor is to be congratulated on the clear and concise paper he has presented on this very important subject, although it is of more importance to the man who is practicing general medicine than the man who is doing special work, since it is the family physician who sees these cases first.

The one condition which is most apt to be mistaken for laryngeal diphtheria is probably the anomalous condition known as catarrhal or spasmodic croup. We have all seen children who were attacked suddenly in the middle of the night with marked dyspnea, and the question comes up, is this true diphtheria of the larynx, or is it a catarrhal or spasmodic condition? When these conditions occur suddenly we are apt to consider the case to be one of catarrhal croup so-called—that is, there is edema and inflammation of the larynx. But these conditions of catarrhal croup have a tendency to be worse at night and get better the next morning. If the child shows marked improvement, it is safe to wait a little for developments before administering antitoxin. If, on the contrary, in the morning the condition of the child is not improved, it is not wise to wait much longer. A point of importance in the differential diagnosis is the fact that true diphtheria tends to become progressively worse, while catarrhal croup shows periods of improvement and then recrudescence. Though I am strongly opposed to undue procrastination, still I do not believe in the indiscriminate use of antitoxin. There are a few cases that result badly, the chief danger being that of anaphylaxis, and in addition to the danger of anaphylaxis, at the time of the injection of the antitoxin, there is a likelihood of sensitizing the patient by the injection of the serum, so that the child will be subject to anaphylaxis if the occasion should occur for the serum to be given at some later time. That is the only objection to the use of antitoxin, and, though it is of some weight, still it is rather to be overlooked when there is at all a strong presumption of the presence of diphtheria.

As to the dosage, I think large doses of antitoxin will do the work better than small doses, and are of no more danger to the child. The only danger to the child is anaphylaxis, and the child is just as likely to show a marked anaphylactic reaction from a small as from a large dose.

What the doctor said about the necessity for intubation and tracheotomy, I agree with perfectly. I remember one case which I will relate briefly, because it is different from most of the cases we hear of. We are prone to report our favorable cases, but do not like to talk so much about our failures. This case resulted unfavorably. The child was in the hospital for some condition other than diphtheria, the nature of which I do not recall. She developed suddenly in the morning pharyngeal diphtheria. She was under the

observation of a very competent man at the time, and antitoxin in large doses was given. I think eight thousand units were used at that time. In spite of the use of this considerable dose, the child's condition became worse. She was three years of age. I saw the child in consultation about six o'clock that evening. At that time the whole pharynx, both tonsils and post-pharyngeal wall, were covered by thick, though not very tenacious membrane, which had evidently extended to the larynx, because there was difficulty in respiration at that time. I was afraid to attempt intubation, for the reason that the introduction of the tube might push some of the membrane into the larynx, produce a complete stoppage, and cause the death of the child. I did a tracheotomy. I introduced a tube, and, in spite of the care I took in introducing it, I must have pushed some of the membrane into the larynx, because, after its introduction, the child stopped breathing, and, in spite of attempt at resuscitation, died immediately.

Dr. William Scheppegrell, New Orleans: We are greatly indebted to Dr. Chandler for this interesting paper, and we can only congratulate him on the result which he obtained. The question of always being ready is important. When we resort to intubation, the very accident that has been described, of pushing membrane down into the larynx, confronts us; but in connection with these cases of emergency we should have at hand an intubation set of instruments and a tracheotomy set, so that we can perform instantaneous tracheotomy. It is very essential to do this, otherwise you are apt to lose the patient. Intubation and the use of antitoxin have revolutionized the treatment of laryngeal diphtheria. An important thing, however, in the use of antitoxin is to use it as soon as possible. I agree with Dr. Chandler, that if antitoxin is given within the first twelve hours you will rarely have to resort to intubation.

Quite recently I was called to see a case in which a physician had made a diagnosis of what he thought was diphtheria, but as there was some doubt about the case, and in order to be on the side of safety, he requested me to see the case with him. I did so, and in examining the larynx I immediately saw a white patch. If any of you have seen a white patch in a small child's larynx you know what it means. We gave antitoxin at once, and in the meantime had a culture made. The next morning a report came in that the culture was positive, but the patient in the meantime was convalescing.

We have a great advantage in doing intubation, in that we have no difficulty in persuading the parents to allow us to do it, as it does not seem like an operation to the parents. I recall a case illustrating this which I had before the introduction of intubation. In this case the child was becoming cyanosed, and I pleaded with the parents to allow me to do a tracheotomy. The mother exclaimed, "What! cut my child's throat! You cannot do it." She refused to have it done. It was difficult for the child to breathe. I remained as long as I could consistently, and then left. Some hours afterwards I was sent for in great haste, and was told that I could perform tracheotomy, but it was too late, because in the meantime the child died.

The Moving Picture and the Eye.*

By CHAS. A. BAHN, M. D., New Orleans.

In offering this paper to the Society I perhaps owe an apology to those of my confrères who have made special studies in ophthalmology for my rather elementary presentation of the subject. Coming before the united body of the State Medical Society rather than before the section on ophthalmology alone, I have endeavored to treat the subject in a way which might be of interest to the majority rather than to bring out obscure points which might interest only eye specialists. Due to the rapid strides the moving picture industry has made in the past few years, its importance from an educational and amusement standpoint, and the greater importance in many branches of scientific inquiry it will almost surely assume in the future, there are perhaps but few subjects that receive more interest than the moving picture.

The cinematograph or moving picture is based essentially on the fact that photographs of a moving object taken and displayed before the human eye at the rate of about sixteen per second give the impression of regular and continuous motion. This rate varies from fourteen to twenty-five per second, depending on conditions of illumination, distinctness, background and regularity of projection, being the minimal time for the visual apparatus to prepare for another visual impression. The picture must be displayed at approx-

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imately the same rate as photographed to give the impression of natural and continuous motion—faster causing the movement to be jerky and unnatural, slower increasing the unpleasant flickering or vibration.

The source of light, usually an electric arc, is condensed to focus on the photographic film, a strip or ribbon of celluloid, rotated rapidly downward. The light having passed through the photographic film is projected by means of a series of lenses on a distant screen. This celluloid film, ranging from 500 to several thousand feet in length, has photographed on it, by a primary negative, the series of pictures, each picture being three-quarters of an inch high and one inch wide. By means of regular perforations on the side of the film, mechanical fingers, which project into these, and a simple means of gearing, the film is fed before the camera at a regular rate, the interval from one picture to the next occupying about one-fifth of the time of the individual picture. It is this short interval which gives rise to the more or less objectionable flickering or vibration. Among other methods of reducing this, cutting out of the source of light between pictures is the most practical, this principle being used in the electric cut-out and rotary shutter. Separate cameras and films, with the same source of light, operated together and simultaneously, have also been used. After the film has been used or more or less time, depending on its care, the perforations on the side of the film become slightly worn, which disturbs the accurate adjustment necessary for the great magnification and speed necessary for proper projection, thereby tremendously increasing the vibration or flickering.

Of the various forms of receiving screen used, mirror, aluminum, white wall and white cloth, all of which, of course, should be kept scrupulously clean, the last named seeems the most satisfactory.

How are these pictures seen and interpreted? In other words, how do we see? Expressions of light are produced on the human eye by ether waves, only varying from 76×10^{8} and 38×10^{8} c. m. in length, comprising but one-seventh of the total range observed.

Rays from an object are focused by the dioptric apparatus of the eye on the retina, consisting especially of an intricate nervous mechanism, the rods and cones being the principal element, and certain photochemical processes. These photochemical changes act on the light rays focused on the retina to produce nerve stimuli, ultimately giving rise to the visual concept. These visual stimuli

are carried along the optic nerves, definite portions carrying impulses from definite parts of the retina. Continued through the chiasm, where the nerve fibers from the right halves of both retinæ approximately are conducted along the right tract, and the left halves of both retinæ along the left tract, the light impulses are carried direct or in relays to the primary or lower visual cortex in the occipital lobe, producing the simplest concept of vision.

This single concept becomes more complete and complicated by association with the higher visual and other sensory areas. To the concrete concept, simple or complex, a name comes to be given through a number of cerebral processes which have their structural substrata in the higher auditory sphere. The highest physical areas of the brain that are concerned with attention and volition, with abstract concepts of every sort, is associated with the visual cortex as it is with all parts of the great concrete memory field, for it is only by such association that reason, judgment and fancy can be brought to bear in connection with our concrete ideas."—Posey and Spiller.

In considering the effect of the moving picture on the normal eye, we must not forget that we are viewing a series of rapidly downward-moving objects at fixed distance under varying conditions of illuimnation, distinctness and regularity. The eye fixes the picture, following it downward for an infinitesimal distance, then quickly looks upward to fix the next picture. This especially brings into action a quick action of the superior recti and inferior obliques, the principal muscles of superduction, with a counterbalancing action of the muscles of abduction and outward rotation.

On the muscles of abduction and adduction the cinematograph can only have an indirect action, as the picture is always more than twenty feet from the observer.

The unpleasant symptoms which the moving picture does sometimes produce in normal eyes, vision, refraction, and muscle balance, I believe can be attributed to the following causes:

1. Non-closure of the lids, for, in staring steadily at a series of moving pictures, with eyes and attention fixed, one is less apt to wink than usual.
2. Retinal fatigue.
3. Defects of sharpness in picture and of the focusing apparatus.
4. Fatigue caused by luminous impressions, too strong or too weak. Brightly and strongly illuminated images cause most fatigue, also sudden changes from black to white or from dark to light.
5. The position of the spectator in the audience. From seats in front of the playhouse the flickering, and hence unpleasant symp-

toms, are more quickly noticed than from seats in the rear; the camera is focused to be most plain from the rear of the house.

With some persons there is a temporary difficulty in apparently adapting the visual apparatus to the moving of the pictures, beginning with the first picture and lasting usually but a few seconds. I have seen several persons with absolutely normal eyes, so far as I could ascertain, in which this persisted and increased until the spectator was forced to leave the theater.

The symptoms I have noted, after a more or less protracted moving picture seance, in normal eyes, are in order of frequency:

1. Injection of the lid margins and conjunctiva, increased in those predisposed, and produced in the normal. This, I believe, is largely due to non-closure of the lids.

2. Lacrimation, usually associated with the above, but not always. With the straining efforts of the ciliary muscle in hypermetropia and astigmatism, it almost logically follows that the parts about the eye must receive an abnormal amount of blood.

3. Retinal fatigue or a sense of tiring deep in the eyes, as may be produced by looking at any point for a more or less protracted time.

4. Pain in and around the ciliary region, which I have noted especially in the astigmatic, and in those with muscular anomalies.

5. Headache, either frontal or occipital, usually the former, on both sides. It has been claimed that a binocular headache, posterior to the eyes and deep in the head, is diagnostic of too much cinematograph, but in this I cannot concur. Here let me say, in my opinion, that in many who complain of severe headaches following a moderate viewing of moving pictures under the most favorable conditions, it is the eyes which are at fault, rather than the moving pictures. In other words, I think that the large proportion of those who complain that moving pictures, under the most favorable conditions, affect their eyes, are not wearing their proper correction, or have some abnormal muscle imbalance, some disease of the eye or defect of vision, or combination of the above. I believe that a pair of normal eyes should be able to view not less than four sittings of moving pictures per week, under the most favorable circumstances and conditions, with practically no ill effects whatever. Of course, this is at best approximate, for any statement as to the endurance of the normal human eye must be as inaccurate as one pertaining to the amount of weight the average normal man can lift with his right arm.

6. Muscæ volantes.
7. Dizziness.

It is unfortunately true that a large proportion of the pictures exhibited are not presented under the most favorable conditions. Poorly developed, worn or scratched films, dirty or otherwise objectionable screens, defects in focusing, poor projection, and mediocre operators, singly or together act in producing pictures which will cause unpleasant symptoms, or even injurious effect, in varying intensity and rapidity on any pair of eyes, abnormal or normal. The moving picture theaters vary as greatly as the regular theater in mediocrity and finished production.

In uncomplicated hypermetropia of low degree, total .75 or less, the effect of the cinematograph is, to all practical purposes, the same as in emmetropia, except in those few overly-sensitive eyes we occasionally see. In hypermetropia of moderate degree, .75 to 2.00 D., the asthenopic symptoms are unquestionably hastened and more severe, especially without proper correction, and even with it, for these eyes seem to fatigue more quickly than emmetropic eyes. In the higher hypermetropias, 3.00 or more, I do not believe the symptoms are proportionally as great, especially without proper correction, probably because these individuals do not attempt to accommodate or strain to focus as distinctly as do the hypermetropes of lower degree. In my own case, with a hypermetropia of 1.50, no astigmatism or abnormal muscle balance, vision in either eye, $^{20}/_{10}$, I can view with my correction a clear and well-projected moving picture, continuously, as repeatedly tried, about an hour and a half in the evening, two hours before noon, without any sense of tiring or unpleasant effect whatever. Without my correction this time is reduced to one hour and a half before noon and one hour in the evening. At the end of this time I note a sense of retinal fatigue or tiring in the back of the eye, which, if I continue viewing the pictures, gradually increases until at the end of about fifteen minutes I note a slight supra-orbital headache. If I leave the theater then, this quickly passes away. Another thirty minutes, about, makes this so severe that I am forced to leave the theater, the headache persisting until I retire.

In uncomplicated myopia, except in the lowest degrees, there is comparatively little complaint of the severe asthenopic symptoms.

In astigmatism, hypermetropic and myopic, somewhat irrespective of amount, the asthenopic symptoms are unquestionably hastened and more severe, in many cases, even with proper correction.

In conditions of lateral muscle imbalance, uncomplicated by error of refraction or disease of the eye, I cannot be positive of the effect of the moving picture. It is difficult to secure sufficient cases of uncomplicated lateral muscular imbalance, cases with perfect vision, no error of refraction, and only an abnormal tendency or actual turning of the eyes out or in; besides, I consider an esophoria up to four degrees for distance as even more normal than absolute orthophoria.

I have not been able to observe sufficient cases of uncomplicated vertical muscle imbalance to form any conclusions, but I believe that the most severe asthenopic symptoms are noted in astigmatism, complicated by vertical muscle imbalance.

In other conditions, extra- and intra-ocular impairing vision, to a certain degree asthenopic symptoms, are unquestionably greatly increased, with vision below this point not proportionally so.

To conclude, I believe that moving pictures, if favorably presented, under the most favorable conditions, are a more or less severe test of distant vision and endurance on the normal eye, depending, of course, on the length of time the pictures are viewed. The vast majority of persons with normal eyes can endure four sittings of thirty minutes each per week, with but little or no temporary unpleasant symptoms and no permanent ill effects. The large proportion of those who complain of unpleasant symptoms under this time from moving pictures under the most favorable conditions have some error of refraction not properly corrected, improper muscle imbalance or defect of sight, or constitutional condition lowering eye endurance. The symptoms produced are essentially those of asthenopia and their sequelæ. Moving pictures, however, under unfavorable circumstances, poorly developed, scratched or defective films, inferior cameras, objectionable screens, irregular and poorly-focused projection, too great or too slight illumination, etc., etc., even in moderation, will produce asthenopic symptoms in any pair of eyes, normal or abnormal. In those who suffer premature or severe asthenopic symptoms from moving pictures under the most favorable circumstances and in moderation, relief lies in the correction of any refraction error, and the benefits that medical science can afford, on the one hand, and less or no moving pictures on the other.

Clinical Note.

By ISADORE DYER, M. D., New Orleans.

The Treatment of Pellagra.

The variety of treatments suggested in pellagra, and the wholesale belief in the incurability of the disease, leads the writer to offer a brief outline of treatment which has proved successful at his hands:

1. Make a proper diagnosis.

2. In cases with purely intestinal and cutaneous symptoms, the prognosis is always good; in the nervous types the disease is usually of long standing and the outlook is proportionately bad.

3. In all cases, give diet containing, *every day,* one-half to one ounce of gelatin, cooked or mixed with the food. Give also, *every day,* the juice of two or more oranges or lemons, preferably between meals. Feed the patient well with eggs, milk and well-cooked mixed vegetables.

4. Keep the patient out of the sun. Indoors, best from sunrise to sundown; out of doors, before sunrise and after sundown. This rule should be absolute.

5. Daily baths in tepid or warm water, with a pound of starch (potato) added.

6. Medication: Quinin hydrobromate, as much as ten grains every three hours where diarrhea and mucous membrane irritation are bad; reduce the dose as symptoms improve, but give it throughout the attack—even all summer and all winter, if any signs of disease. Two or three grains, two or three times a day, will answer as a tonic dose.

Give arsenic, strychnin, iron and other tonics as the case may indicate. None of these are specific, and the quinin seems to be.

7. Judge improvement by the increased body weight, appetite and general appearance.

Comment: There is a tendency to discourage patients with pellegra, and to such an extent that in the popular mind pellagra is classed with plague. This should stop. Bad cases of pellagra die, so do bad cases of measles; ordinary cases of both get well. The patient should be told this.

Diphtheria*

By SOLON G. WILSON, M. D., New Orleans.

While we understand the disease to-day more thoroughly, yet the interest in diphtheria is nearly as intense as it has always been.

The history of this disease takes us back into ancient times (A. Baginsky, Berlin). The disease then bore the name of Morbus Ægypticus and Syriacus, and, on account of its terrible character, Spanish authors gave it the name of *"Garotillo,"* so called after the cudgel of the executioner. By the Swedish physicians it was given the name of *"Strypsjuka"* (strangling disease). From these designations, which were popular with the people, it may be seen that the danger of suffocation was the most prominent symptom of those affected, and the death by suffocation was the most feared result, and yet so many ancient characteristics were found in the ancient descriptions of the disease: the rapid prostration, condition of delirium, cardiac depression. It was by a Scotch physician that diphtheria was divided into two forms—the actual suffocating disease, which was called croup, and the other form, which was a condition of overwhelming poisoning.

It was the noted French physician, Pierre Bretonneau, from his classical observations, who called attention to the unity of the various forms, in that he showed the thick, leather-like membrane on the tonsils and naso-pharyngeal space. Bretonneau attached the greatest importance to the membrane-like pathological formation, and it was he who originated the name diphtheria, from the Greek word *diphtra,* meaning skin.

Even down to to-day the fear of the disease among the people has been lessened only to a small extent.

This much I unhesitatingly say, that, among the profession in this day of progressiveness, to make a mistake or to overlook the diagnosis of this disease, is done at the expense of your reputation. The growing demand by the profession for clinical diagnosis is felt over the entire medical world. The practitioner wants methods that are quick, reliable, dependable and within his reach. The laboratories are wonderful adjuncts, but they are not within reach of 75 per cent of the medical men. So many things, too, can interfere with laboratory reports. For example, if your technic in getting specimens is not good, your report will probably be unsatisfactory. Then, as in diphtheria, if sprays or antiseptic solutions

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

are used, you may have the growth of the organism inhibited. Delays in getting reports, also, from twenty-four to forty-eight hours are encountered, which is at a dangerous expense to your patient.

The laboratory is a wonderful gratifying aid in checking up, but we must make our diagnosis at the bedside, and to this end our efforts must be directed. Clinical experience has taught us many things beyond the mere kind of disease. The microscope, for example, can only indicate the kind of organism, while, on the other hand, clinical manifestations can assist us in arriving at the diagnosis, degree of toxemia, as in the case of diphtheria, and at the prognosis.

Clinically, diphtheria is divided into tonsilar and pharyngeal type, nasal type, laryngeal type.

Experience has taught us that the laryngeal and nasal types are decidedly less toxic than the tonsilar and tonsilo-pharyngeal type, and were it not for the stenosis in the laryngeal form, the danger would be practically less. In this form the hoarseness is one of the most signal symptoms.

The nasal diphtheria is diagnosed by the nasal discharge, usually bloody and purulent, and the lesion is found in the form of grey patches upon the the nasal septum.

The tonsilar and the pharyngeal are the most frequent, and certainly the most important. Before going into the features of this type, with reference to the temperature, would say that this is a feature that is not dependable, as you often see diphtheria, especially the nasal, without any temperature at all.

The symptoms that have been most reliable in my observations have been: 1, Tonsils large and red; 2, lymph glands about the neck proportionately involved to the throat involvement; 3, the size of the membrane; 4, the rapidity with which it spreads; 5, the thickness and the color of membrane; 6, the tissues swollen around the membrane; 7, and, as in the other types, fever is not an absolutely necessary symptom.

The indicator of severity of the infection is the amount of area involved, and it is practically safe to say that, as long as only one-fourth of the tonsil is covered with membrane, you have a mild infection, as much as one-half a medium infection; and one covering entire tonsil, extending to uvula, you have a severe involvement, one that demands early, active and vigorous treatment. This last-mentioned case is the kind that if you wait for the laboratory report you do so at a tremendous risk.

In the severe cases seen by me early, presented at first a thin transparent coating over entire tonsil, which in a few hours became thick, and in all of these cases there was a severe toxemia.

Before going into the treatment it might be well to say something with reference to early administration of serum.

First of all, a great deal of literature has come out recently in regard to anaphylaxis from the use of antitoxin, and this has done more than accomplish its real purpose, the intention of which was to discourage the use of prophylactic doses, the method of which was to inject 500 units—certainly a bad plan, because we could not estimate whether or not it prevented the infection. As a matter of fact, the number who develop the infection after exposure is infinitesimally small, anyway.

These articles, however, had a more far-reaching effect than desired, in that they affected the giving of serum to cases that were in doubt, because of the fear of an anaphylaxis. The answer to this is that "it is better to give antitoxin one hundred times too often than to fail to give it one time when it should have been given."

Antitoxin is the remedy; to this we are all agreed. There is a great variation among different men as to the dosage, ranging from two thousand units to one hundred thousand units. The way to estimate the doses should depend upon the following: 1, How early the antitoxin is given; 2, the extent of the membrane; 3 the weight of the patient; 4, the amount of the apparent toxemia.

If the serum is given in the first twenty-four hours it will take less; if the membrane is comparatively small, this, too, is an indication for a smaller dose; if the disease has been in progress several days, with evidence of toxemia, it is safe to assume that large doses will be required.

A rule with reference to approximating the doses, and which has worked out very well with me, is to give, in mild infections, as the initial dose, from 1,000 to 1,500 units for each fifteen pounds of the body weight; in severe infections, would give 2,000 to 4,000 units for each fifteen pounds of the body weight as the initial dose.

A child weighing forty-five pounds, with a mild infection, would get 3,000 to 4,500 units; a child weighing forty-five pounds, with a severe infection, should receive 6,000 to 12,000 units as the initial dose.

Theoretically, one dose should suffice, as we are giving this to neutralize the toxins. In giving sufficient initial doses we are

justified in waiting twenty-four hours before the second dose is given. The appreciable effect is not seen before twenty-four hours, and as long as the patient is holding its own during the first twenty-four hours it should be regarded as getting along alright.

The kind of antitoxin given is of some moment, as when urticaria does appear it is annoying, and we can reduce this condition to a minimum by using the globulin antitoxin, which is concentrated and free from horse serum, which is thought to be the disturbing factor.

An essential of diphtheria that is too often overlooked is the great danger to the heart, as the toxins seem to have a special affinity for the heart muscle. It is not at all infrequent that we meet heart paralysis between the ninth and fourteenth days, hence the importance of keeping the patients in bed eighteen to twenty-one days. In connection with the heart, I have abandoned the use of sprays, because their use seemes to excite the patients and do more harm to the heart than the cleansing feature could possibly do good.

There are cases in which antitoxin has not been used early enough, or not at all, that come to us, and mechanical surgical interference has to be resorted to, and your choice is reduced to two methods, viz: tracheotomy and intubation.

Intubation is the procedure of choice: 1, Bloodless; 2, less shock; 3, not a cutting operation; 4 feeding after tube is introduced is easier; 5, absence of an open wound to heal that sometimes takes months and months; 6, the family never object to the operation.

There are cases, however, where the tube fills up and does not give relief. In this form the tracheotomy is indicated, and should be reserved as the last measure to be resorted to.

It might be interesting to see, for comparison, the three leading scientific countries' different ways of managing "intubed cases."

The French, for example, introduce the tube and leave it in position for a few hours, believing that dilatation is all that is necessary, and report wonderful results; the German leaves the tube in from twenty-four to forty-eight hours; the American leaves the tube introduced from six days to two weeeks.

My impression is that the twenty-four-hour or German method is the best, which is rather a compromise between the French and the American. The objection to the American method is that after the tube is left for several days there is a likelihood of an ulceration, followed by a temporary paralysis. The decubitus could hardly take place in twenty-four hours, and too often after the removal

there is not the irritation that follows the removal after it has been in for some time.

My attention was first called to the good results from allowing the tube to remain in place for eighteen to twenty-four hours by the tube being coughed up in several cases, after it had remained in about twenty-four hours, and no attempt was made to reintroduce the tube, yet the patient did better than those in which he tube remained longer.

The technic of introducing the tube, with an O'Dwyer set, is simplified by, 1, immobilize the child; 2, introducing in the middle line; 3, pressing down the epiglottis with the forefinger of the left hand and firmly holding it; 4, remembering the direction, first backward, downward and forward, the course is that of a semicircle.

In feeding these children, a liquid diet is to be preferred, and, in order to avoid the food or liquid entering the tube during the meal, have the head on a lower plane than the body.

DISCUSSION OF DR. WILSON'S PAPER.

DR. HOMER DUPUY, New Orleans: The author of the paper has impressed you with the idea that intubation is an easy thing. I wish to correct such an impression before an assemblage who naturally desire to weigh the comparative merits between intubation and tracheotomy. Intubation may be regarded as an art. It is the operation of selection in expert hands. Tracheotomy is more feasible to the practitioner. A personal experience with both operations has given me a decided preference for intubation. The only justification for tracheotomy would be: (1) A laryngo-tracheal affection; (2) if the patient is far removed from an expert intubationist; (3) if the intubationist is at a very great distance from the patient, when he could not reach the patient in time should autoextubation occur. The question to lay particular stress on is when to intubate. There is an opportune moment. Prolonged, persistent and increasing dyspnea, despite serum and other therapy, calls for interference.

DR. WILSON (closing): With reference to Dr. Dupuy's statement I want to say that the men engaged in practice in the country have not the opportunities to call in an expert man to intubate their cases. The technic is difficult. I have intubated about twenty-five patients, and I find it is by no means an easy procedure, but I think every man should try to familiarize himself with the method of intubation, because these cases come up and you cannot wait for expert help.

With reference to what was said by Dr. Bel, I do not think there is much difference in our judgment. If you will read my paper when it is published you will find that, in a mild infection, where about one-fourth of the tonsil is involved, the initial dose of antitoxin would be 4,000 units for a child weighing forty-five pounds. In a case of severe infection I never give less than 10,000 or 12,000 units of antitoxin. In order to obviate the urticaria, I recommend giving globulin antitoxin, which is concentrated. The horse serum seems to be responsible for the trouble.

With regard to spraying the throats of a child, I do not think much good can be accomplished by it, and his explanation was a very good one.

In answer to Dr. De Buys with reference to the laboratory, the size of the gray patch is an important indication. If I have a patient with only one-fourth of the tonsil involved I wait twenty-four hours, if I have laboratory conveniences. If half of the tonsil is involved, I hesitate to wait for the laboratory report; and I want to repeat, it is better to give antitoxin one hundred times too much than to neglect giving it one time.

The Needs of the American School of Tropical Medicine Recently Established at New Orleans, under the Tulane University.

By ISAAC W. BREWER, M. D., Fort Niagara, New York.

Progress in the world is largely made by organized effort on the part of human beings, each occupying himself in that line to which his talents are best suited, but contributing his quota to the completed work of the organization. Were we so organized that each one accurately fitted into his proper place, the progress of the world would be very great; but unfortunately this is not possible, and much of the human effort is lost. This is particularly true of medical effort. Scattered, and often preoccupied with the business side of the profession, we are apt to forget that we are a part of the great movement which has for its mission the prevention and cure of disease. This applies more particularly to those who work in the tropics. Many of these workers have accumulations of observations and experiences that would greatly enrich the profession at large, but there is no organization which affords them an opportunity of meeting their fellows and disseminating this knowledge,

many of whom are confronted by the same problems that they have solved.

During the past few years the American people have awakened to the value of the trade to be had with our neighbors in Central and South America, and to further this trade we now have an endowed institution, which is doing a great work for all of the American countries.

One of the great obstacles to trade is the quarantine, but, disastrous as is this, there is but one way to avoid it. That way is to eradicate disease from the ports with which we have commercial relations. The United Fruit Company, realizing this, has established a medical department, and is beginning an active campaign to improve the sanitation of the ports where its ships call. They have the coöperation of the Department of Tropical Diseases of the Tulane University. This will result in much good, not only to the inhabitants of those ports, but will greatly augment our commerce. It will also give an outlet for American brains and energy for the development of the countries affected. Sanitary reforms undertaken by our people will mean that the supplies will be largely purchased in this country, and that many of our workmen will be employed there.

The profession of medicine will be benefited by the practical demonstration of our ability to prevent diseases in the tropics. In the prosecution of this work a wealth of data regarding diseases of the tropics will be accumulated. However, much of this will be lost unless there be some central institution where it can be collected, digested and disseminated for the benefit of others who are at work in the tropics.

In the recently-established Department of Tropical Medicine of the Tulane University there is the beginning of such an institution. We would like to see this department something more than a place for undergraduates. In addition to the instruction in the elementary knowledge of tropical medicine, it should be a great center for research. There are so many unsolved problems in tropical medicine that nothing short of concentrated effort will enable us to overcome the obstacles placed in our way by nature.

Of the value of such work there can be no doubt. The Institute in the Federated Mayaly States, by its work on the prevention of beriberi, has returned more to that country than it will ever cost. The recent work on the treatment of beriberi in children, done by

the Board for the Investigation of Tropical Diseases in Manila, has returned to us more than it will ever cost. So will it be with the institution which we hope to see in New Orleans. In the years to come our medical men from the tropics will gather in a great conference like the Mohonk Conference, and by informal talks and by fixed programs will discuss the great problems of tropical medicine and hygiene.

There will grow up around this conference a great system of laboratories, where men with ideas and the training to develop them will be given opportunity to work out their theories.

There should be a Department of Sanitary Science, under a man like Col. W. C. Gorgas. From this department young physicians and engineers should go to the tropics to study and work out the problems of sanitation that perplex the plantation owner or other business man. The dismal failure of the French at Panama, and the brilliant success of our operations there, speak in no unmistakable terms of the value of sanitary supervision of industrial operations within the tropics.

In all institutions of learning, the museum is of the greatest importance, especially one which teaches medicine or sanitation. We hope to see such a museum in New Orleans, under an enthusiastic worker like Dr. R. P. Strong, who has developed the system of laboratories in Manila. Here the worker in the remote parts of the tropics could send his material to be classified and worked up. This department should be open to all workers in tropical medicine.

Last, but not least, there should be a library and publication department. Here should be collected the literature of medicine as related to the tropics. Digests of all that is new in tropical medicine should be prepared and issued to those who are interested in the subject. A weekly or monthly publication should present these digests to the workers who are stationed at points where there are no library facilities. To accomplish the greatest good, this publication should be issued in English and Spanish.

These various departments, which are badly needed for the American School of Tropical Medicine at New Orleans, offer an opportunity, for those of our country who have the funds, to do a large amount of good, and at the same time to create memorials which will last. It is hoped that some of our rich men will see these needs as did Mr. Andrew Carnegie when he established the Bureau of American Republics.

Clinical Report.

A Family of Pellagrins.

By J. M. BODENHEIMER, A. B., M. D., Shreveport, La.

Some few weeks ago I was called to see a patient suffering from metrorrhagia. In the course of my examination my attention was attracted to skin lesions on either forearm, which she had supposed to be due to cooking over a gas stove. When, after a careful examination, I informed her that she was suffering from pellagra, she volunteered the information that her sister-in-law, then living in the same house, had a similar condition on her arms.

An examination of the sister-in-law and the latter's three children resulted in finding three pellagrins in that branch of the family—the mother, a girl of five years, and a baby of one and one-half years of age.

The first woman is the mother of one child, a boy three years old, who presents no symptoms of pellagra.

A female child, aged three, of the second woman, is also free of symptoms. Neither of the husbands presents any symptoms of the disease. These two women, both of about the same age—twenty-seven—were born in adjoining counties of northern Mississippi.

The one, Mrs. W. L. W., the mother of the non-pellagrous child, lived at her birthplace up to three years ago, when she was married and moved to Rayville, La., living there about one and a half years, after which she removed to Shreveport, where she has since resided for the last year and a half.

The second, Mrs. M., the mother of the two pellagrins, moved to Louisiana at the age of seven. She moved to Rayville, La., about the same time the first Mrs. W. moved there, lived near her, and drank the same water from underground wells. She moved to Shreveport about three months ago.

They all began to show symptoms of pellagra about the same time, namely: two months ago, although Mrs. W. No. 2 reports a sore mouth during last winter. The skin symptoms manifested themselves for about one month before coming under my observation. All four showed the arm lesions. The little girl, aged five, had the lesions on her legs and feet also. The two women showed the typical tongue, mouth and lips. There were no lesions on legs,

feet or vulvæ of either woman. Mrs. W. No. 2 had lesions on her neck at the juncture with the body.

The baby had lesions on neck, feet and legs; arms slightly. No bowel symptoms except in baby. Marked indigestion on both women.

They have all been cornbread eaters, but the men, who showed no symptoms, eat as much or more than the women. An examination of the stools showed no intestinal parasites.

July 7 the two women and the little girl were given soamin by hypodermic—the adults five grains each, the child three grains.

As the infant was suckling, the experiment of treating it through the mother was tried, so far with marked success.

The treatment has been continued on alternate days uninterruptedly since it was first begun; so far, they have received twelve injections. After the first two medications, there was noticed a marked amelioration of the skin lesions.

At the present writing the little girl, who received soamin in three-grain doses, is to all apeparance entirely well, although the treatment will be continued.

The two women are almost entirely free of the symptoms of pellagra. Their mouths have cleared up, their appetites have returned, and the skin lesions are barely discernable.

To summarize, these patients have evidently been subjected to the same condition—I am not bold enough to say contagion—which has produced this disease.

Second. The treatment of suckling infants through the mother is practical.

Third. Soamin is highly efficacious in beginning pellagra.

Fourth. Children tolerate large doses of soamin.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The Plague.

In New Orleans nearly five thousand rats have been examined, with only one suspect—that one proven plague-infected. The City Board of Health has announced in the public press that the systematic examination of rats will be discontinued after October 1, although the examination of rats brought to the laboratory will be continued as a matter of routine.

To say the least, this is a short-sighted policy, and it is to be hoped that the city authorities will see to it that enough funds are provided to go on with this work. The lack of watchfulness will more than discount the good work already done, and it is a well-known fact that plague is slow and insidious in its approach and its attack.

The Medical Conference Committee has considered plans for a campaign for the coming years and so comprehensive are these plans that, until they are thoroughly matured, there is no intention of promulgating them.

We have already several times adverted to the need of systematic rat-extermination, and this cannot be left to an apathetic public; the work of extermination must be carried on by qualified persons.

It is, of course, wise to provide for the safeguarding of shipping, and this precaution may save us exposure to the plague.

In this connection it is interesting to note the prompt coöperation of the United Fruit Company. In a circular letter addressed to the medical officials of this company, direct and official instruction is given to collect and to forward live specimens of rats and flea-carrying rodents to the laboratories in New Orleans, for examination. More than this, all medical officers of the company are urged to conduct laboratory investigations of rodents, etc., with a view to ascertaining local conditions.

The company has issued additional instructions regarding rat shields for their vessels, and regarding other known means of preventing the ingress of rats.

It is entirely incumbent upon New Orleans to do her share in the same cause.

We shall be the better satisfied to announce that New Orleans, with the sister cities of the Gulf and South Atlantic, is doing her share to keep out plague, rather than to share in a neglect for which all may be held accountable should we be overtaken.

Example is the best teacher, and if the guardians of the public health can only inoculate a growing enthusiasm it may be reasonably expected that the public will soon try to help itself in protective measures; but particularly in exterminating rats.

Disinfection by Iodin.

The antiseptic preparation of an operative site with tincture of iodin has become so much the fashion that any little hint relating to its successful application must prove useful to many of our readers.

An argument against the method is the irritation produced, ordinarily slight, it is true, but sometimes very pronounced, occasionally and unexpectedly serious.

The preventive consists in applying to the painted region a 5 per cent solution of hyposulphite of sodium. After the application of iodin, the surface is covered with a layer of absorbent cotton, and about five minutes later the cotton is soaked with the sulphite solution, warmed to about 104°. The iodin is changed to iodide of sodium by the solution, which removes the irritation, and, being itself practically a physiologic solution, it is painless even to wounds or to tissues other than the skin.

The idea is to be credited to Prof. L. Sabbatini, of the University of Padua.

It is both simple and efficient in practice.

Abstracts, Extracts and Miscellany.

Department of Therapeutics and Pharmacology.

In Charge of Dr. J. A. Storck and Dr. J. T. Halsey, New Orleans.

Hay Fever and Its Treatment: Beverley Robinson (Merck's *Archives,* May, 1911), asserts he has had more satisfaction from a combination of camphor, oleoresin of cubeb, glycerin, and petrolatum than from any other local application. The above ingredients, when mixed are in the form of a relatively soft ointment. They may be used, sniffed well up into the nasal passages, several times a day, and introduced therein either with the end of the finger, or on a camel's hair brush, before being drawn well upward and backward into the nasal passages, and when they are felt in the nasopharynx the excess of ointment is hawked down and expectorated from the mouth. At present he is making use of the liquid petrolatum, and the ingredients become a thick, oily liquid instead of a soft ointment. These are sprayed by means of a glass atomizer into the nasal passages several times daily, or whenever relief seems to be much needed. The precise formula now employed by him is:

℞ Pulv. camphoræ, gr. x:
Oleoresinæ cubebæ, m. xx.
Glycerini, f3j;
Petrolati liq. q.s. ad. f3ss.

In conclusion he adds that in his observation there is no health resort in the East which will invariably, and during successive seasons, accord absolute immunity to attacks of hay-fever. Further, this is also true of a sea voyage, even though it be a long one.

J. A. S.

The Pituitary Gland and the Actions of Its Extracts: Wiggers, in an able article on this subject, in substance states that:

1.—Developmentally and histologically, the pituitary gland is composed of an anterior or epithelial portion and posterior or neurogliar portion.

2.—The anterior lobe evidently elaborates a secretion that is necessary to life and to normal metabolism and development.

3.—This substance has so far resisted extraction by various solvents, hence its chemical nature and physiological properties remain unknown.

4.—The posterior lobe, which is not of vital importance, contains or secretes a substance that may be extracted by water, glycerin, or salt solution, and resists boiling, but it has not been demonstrated that it is identical with the secretion of the anterior lobe, or that it represents its vital principle.

5.—These extracts constrict the peripheral vessels (probably by a direct muscular action), thus producing a marked rise of arterial blood-pressure. This constriction is not equally pronounced in all organs, for the renal vessels are, at least passively, dilated during its action.

6.—These extracts are generally stated to slow and strengthen the heart, but myographic tracings of the intact and perfused heart indicate the depressing influence to be the most constant and characteristic one, an increase in the amplitude being only exceptionally the case. The slowing, as well as depression, is largely attributable to a direct cardiac action, but the former may be augmented by a vague effect.

7.—Pituitary extract resembles adrenalin in its action, only in that it causes a rise in blood-pressure. The manner in which they affect the heart and blood-vessels, as well as the effects induced, is entirely different.

8.—In addition to its cardiovascular actions, pituitary augments the secretion of urine and inhibits the flow of pancreatic juice, but it has not been definitely determined whether these varied reactions are due to separate substances, to a specific affinity of a single substance for different cells, or whether they are secondary to changes in the circulation.—*Amer. Journ. Med. Sciences.*

J. A. S.

Cirrhosis of the Liver; Much confusion has always existed in the classification of the different types of cirrhosis of the liver, and it has been rather the terminal stages of cirrhosis that have been studied by the pathologists than the earlier lesions of this process. Mallory (*Johns-Hopkins Hospital Bulletin,* 1911, xxii, 69), after a study of a large number of cases of cirrhosis of the liver, divides this lesion into five groups. The first group consists of the toxic cirrhosis, which includes the cirrhosis following central necrosis of the liver and is best exemplified by acute yellow atrophy. A study of these cases seems to show that when all the liver cells of a lobule were destroyed the bile ducts grow out a certain distance towards the hepatic vein, but they do not produce

liver cells. Liver cells, on the other hand, originate only from liver cells, and never from bile-duct epithelium. The production of fibroblasts (of new connective tissue) depends upon something more than the mere destruction of liver cells. The other four types of lesions terminating in cirrhosis show that fibroblasts multiply only when fibroblasts themselves have been injured or disturbed and thus lead to increase of the connective tissue. The second group consists of the infectious cirrhosis. This is comparatively a rare lesion. Infection travels along the portal spaces, causing an inflammatory reaction in this region, with formation of new connective tissue. In the third group, or the pigment cirrhosis, there is a direct lesion of the fibroblasts which comes with the deposition of pigment. Alcoholic cirrhosis, which forms the fourth group, is characterized by a peculiar hyaline degeneration of the cytoplasm of the liver cells preceding necrosis. In this same type the contraction of the connective tissue frequently compresses groups of liver cells so that they resemble bile ducts, but in these compressed liver cells it is often possible to demonstrate large fat vacuoles or hyaline material due to degeneration in the cytoplasm, neither of which occurs in the true bile-duct epithelium.

In syphilitic infection of the liver, which represents the last group, the primary injury is due to the fibroblasts, in consequence of which they often proliferate in excess. Contraction later of the collagen fibers produced by them results in compression and atrophy of the included liver cells. This direct injury to the fibroblasts by the *Spirochæta pallida* seems to be a general one and characterizes the specific action of this organism. J. A. S.

Action of Tropical Sun: Experimental research by Aron showed that under climatic conditions, even during during the cooler seasons of the year in Manila, animals, such as rabbits and monkeys, which by nature have only a limited power of physical heat regulation, or animals the physical heat regulation of which is artificially inhibited (tracheotomized dogs) die if exposed to the sun, the body temperature rising to febrile heights. If the same animals are protected from the rays of the sun, or if the increase of heat due to radiation from the sun is compensated by an increased loss, such as would be brought about by strong wind, when the animals suffer no discomfort. Insolation of the skull alone is without effect if the body temperature is kept within normal limits. The post-mortem findings on the animals dying as the result of

insolation show decided hemorrhagic lesions of the meninges in the brain, and in monkeys in the heart. In the animals without sweat glands the subcutaneous tissues are heated by the radiated heat from the sun to temperatures above those compatible with life. The human skin is exposed to the sun, is warmed to about 3° to 4° above the normal skin temperature. An increase, even to the normal body temperature, is prevented by the evaporation of sweat. The cooling effect of the sweat secretion causes a fall of the skin temperature even if insolation is continued during longer periods. The brown skin of Malays, while theoretically absorbing more heat, in the sun, shows a smaller rise in temperature in the tropical sun than the skin of white men under similar conditions. As an explanation, it is believed that an earlier and better water evaporation, by sweat secretion takes place. The air in the human hair, especially in black hair, under the influence of the tropical sun acquires temperatures far above those compatible with life. It was demonstrated by Aron that in the tropical sun a man with a colored skin is in a better position as regards heat regulation than is a man with a white skin.—*Philippine Journal of Science.* J. A. S.

Salvarsan Fever: Hecht (*Med. Klinik,* 1912, viii, 401) gives the following factors as causes for untoward symptoms that may develop after salvarsan injections: (1) The use of unclean salt solution in the preparation of the salvarsan for injections. (2) The setting free of endotoxins from the spirochete destroyed by the salvarsan. (3) In a few cases a specific toxic action of the salvarsan itself. Hecht believes that the first cause explains the great majority of the febrile reactions occurring after salvarsan injections. He says that most of the untoward symptoms may be avoided by using only freshly distilled water in the preparation of the salt solution. J. A. S.

Acute Articular Rheumatism Treated by the Rectal Administration of Sodium Salicylate: Heyn (*Journal American Medical Association,* 1912, lviii, 1013) advocates the rectal administration of sodium salicylate for the treatment of acute articular rheumatism. The rectal administration is to be preceded by a cleansing enema of plain water and two to four drams of sodium salicylate are then incorporated in an enema of six ounces of starch water and from five to ten drops of tincture of opium. This enema is, as a rule, readily retained. Heyn says that this procedure has

been resorted to in 22 cases, 5 of which were not typical instances of acute rheumatic fever, but the therapeutic test was nevertheless applied. No unfortunate results happened in any instance, though frequently the dosage reached 240 grains daily. One case only was intolerant to the remedy, owing to a previous irritability of the rectum. All typical cases were more or less benefited, and these results obtained with the rectal administration of sodium salicylate should warrant its use, not only in cases in which the stomach is intolerant, but, where possible, as a routine measure. J. A. S.

Bacterial Contamination of Bread: With the plan of determining the degree of bacterial contamination of the outside of bread, 100 loaves were collected by Howell from various districts in the north, south and west sides of Chicago. The loaves were about the same size, ranging from 345 to 375 gm. They were oblong in shape. The exposed surface was, therefore, about the same in all the loaves. The shops from which the samples were chosen differed greatly in conditions of sanitation. There was every degree of cleanliness, from the clean shop where the bread wrapped in oiled paper was kept in glass cases, to the dirty shops where the bread was kept on a counter, far from clean, freely exposed to dust, flies and handling by the customers. Each loaf of bread was taken to the laboratory as wrapped when purchased, since this imitated the conditions under which the bread would ordinarily be used. The entire loaf was then swabbed with wet sterile cotton and the cotton thoroughly rinsed in 10 c.c. of sterile water. From this suitable dilutions were made.

The mediums used in the experiments were gelatin, lactose-litmus-agar and lactose broth. The gelatin plates of the first 50 loaves were incubated at exactly 20 C. for 72 hours, those of the last 50 at room temperature (which was practically 20 C.) for 72 hours, and the lactose-litmus-agar plates at 37 C. for 24 hours before making the colony count. The count was much lower when the bread was kept under clean conditions than when the conditions were dirty. All acid colonies were picked and special search made for B. coli and streptococci. These were chosen as types, since they are both common and give some indication as to the cleanliness of conditions. B. coli was isolated from three loaves. Two of these loaves were purchased in very dirty shops. The third loaf came from a fairly clean store. Streptococci were isolated from thirty samples.—*American Journal of Public Health.* J. A. S.

Miscellaneous

Eosinophilia in Scabies.—The diseases of the skin in which an increase of eosinophiles can be demonstrated with a fair degree of constancy, according to the authors, are dermatitis herpetiformis, bullous dermatitis, pemphigus (including pemphigus vulgaris, pemphigus foliaceus and pemphigus vegetans) and scabies. The average eosinophilia in scabies is considered less than in the bullous diseases. In mycosis fungoides, eosinophilia of a rather high grade is found in about 45 per cent of the cases. In a single case each of xanthoma diabeticorum and dermatitis coccidioides there was a marked eosinophilia. It is interesting to note that while chronic and extensive cases of eczema may now and then give rise to a high eosinophilia, yet the average of 29 cases of eczema, including a number of widespread eruptions, was 4.75 per cent. The authors have examined the blood of several extensive cases of eczema and have found a very low eosinophilia content. In psoriasis, two series of 25 and 12 cases, respectively, gave counts of 4 and 3 per cent. It would appear, therefore, that the dictum of Canon that eosinophilia is largely proportionate to the extent, intensity and chronicity of the skin involvement rather than to any special character of the dermatosis, requires modification. It is interesting to observe in some of the reported cases of bullous eruptions that there is a high eosinophilia about the time of a fresh outbreak, while during quiescence of the process, the eosinophiles may be normal in number. Eosinophilia is common in bronchitic asthma and in various animal parasitic invasions of the intestinal tract.—*Boston Medical and Surgical Journal.* J. A. S.

Curious Cases of Incompatibility.—In a recent issue of an American pharmaceutical journal attention is drawn to the fact that an incompatibility between a medicine given internally and one applied externally may cause undesirable epidermal manifestations. Reference is made to a case in which hydrogen peroxid was applied externally, while potassium iodid was given internally. The result was a severe burning of the skin, the cause of which was not discovered for some little time. In another instance a colorless tincture of iodin, taken internally, in conjunction with an ointment of ammoniated mercury, externally applied, caused severe irritation of the skin, which was attributed to the toxic ac-

tioi of mercuric iodid. Other illustrations might be given of the importance of avoiding such cases of incompatibility. Thus, sulphur given internally and a solution of mercury used externally may be expected to cause a deposit of black mercuric sulphid in the skin. These instances are of great interest to physicians, as they afford an explanation of phenomena which might sometimes be attributed to idiosyncrasy or some other cause, except the right one.

Within the last few months an interesting case arose at St. Paul, Minn. A lady had used a certain advertised face-cream for the purpose of removing freckles, and she was horrified to find that her face became variegated in color from yellow to brown and then black. Since many creams of this nature contain some form of mercury it is probable that the trouble was caused by a chemical reaction between the ingredients of the cream and some medicinal substance she may have been taking at the same time. These illustrations emphasize the danger of indiscriminate self-medication; they further show that care should be taken not to use mercurial creams when undergoing certain courses of internal medication. The apparently harmless sulphur lozenge or compound licorice powder may cause much chagrin and discomfort, if not danger, when taken into the system at a time when a favorite brand of toilet cream is being used to beautify the complexion.—*Lancet*, March 2, 1912. J. A. S.

Death from Dilation of the Heart After Exercise.—(Hastings vs. Travelers' Insurance Co. (U. S.) 190 Fed. R. 258.) The United States Circuit Court, in Washington, holds that where a man 54 years of age and of normal stature lifted himself up and down two or three times in a chair, possibly two or three times in one chair and two or three times in another chair very soon afterwards, his death brought about in that way was not caused by "external, violent and accidental means," within the terms of an accident insurance policy. The court says that a post-mortem examination was held the following day by a capable physician, who discovered that prior to his death the insured had an enlarged heart and hardened valves; but that the immediate cause of his death was his physical exertion, which produced a dilation of the heart.

This case should have been submitted to the jury if there had been any room to find that there was any miscalculation, anything

unforseen, or unintended in the events leading up to the death of the insured. In other words, if there had been anything in his act which was unforeseen, unexpected or miscalculated, then it would have been a question for the jury as to whether that accidental element caused the death. But it was admitted that the act of the insured in lifting himself by his hands and letting himself down was precisely the movement that he was intending to perform and desirous of performing. There was no slipping of the hands or of the body or of the chair. So far from there being any element of chance or miscalculation or the unexpected, the movement was accomplished precisely as contemplated. The only mistake the insured made was in miscalculating the strength of his heart. There was no possible liability. J. A. S.

Medical News Items.

Eighth International Congress of Applied Chemistry met in Washington, September 6. The Congress was formally opened by President Taft, and fully 600 foreign delegates were present. The stated object of the Congress was to bring about international uniformity in chemical methods, analyses and terms, and to fix a universal standard for the pharmacopeia.

New Discovery Regarding Measles.—Dr. John F. Anderson and Dr. Joseph Goldberger, of the Hygienic Laboratory in Washington, have announced their intention of presenting two discoveries about common children's diseases, such as measles, which will make the malady less general in the future. The announcement will be made at one of the sessions of the Fifteenth International Congress on Hygiene and Demography, which meets in Washington, September 23. Drs. Anderson and Goldberger are quoted as saying that they have proven that the scales of skin that brush off of a child with measles do not carry the germ, but that it is the secretions of the mouth.

The United States Civil Service Commission calls attention to the examinations to be held on September 11, 1912, to secure eligibles from which to make certification to fill vacancies occurring in the position of physician in the different services. Among the vacancies to be filled as the result of this examination there will be

the following in the Indian Service, unless it is found to be in the interest of the service to fill such vacancies by reinstatement, transfer or promotion: Colville Agency, Washington, $1,200 per annum; Fort Lapwai, Sanitarium, Idaho, $1,000 per annum; Navajo Agency, New Mexico, $1,000 per annum; Navajo Springs Agency, Colorado, $1,000 per annum; Pueblo Day Schools, Albuquerque, New Mexico, $1,000 per annum; Tongue River Agency, Montana, $1,000 per annum; Walker River Agency, Nevada, $1,000 per annum; Western Shoshone Agency, Nevada, $1,000 per annum; Winnebago Agency, Nebraska, $1,200 per annum. Full information in regard to the examination for physicians is contained in section 192 of the Manual of Examinations, revised to July, 1912. Applicants should at once apply for a copy and Form 1312 to the United States Civil Service Commission, Washington, D. C.; the Secretary of the Board of Examiners, postoffice, Boston, Mass.; Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Cal.; customhouse, New York, N. Y.; New Orleans, La.; Honolulu, Hawaii; old customhouse, St. Louis, Mo., or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R. No application will be accepted unless properly executed and filed with the Commission at Washington. In applying for this examination, the exact title as given at the head of this announcement should be used in the application.

The National Association for the Study of Pellagra.—The second triennial meeting of this association will be held in Columbia, S. C., on October 3 and 4. Every effort is being made to to enlist the interest of pellagra specialists all over the world, and the Congress will be really international in character. An invitation is extended to all persons interested in pellagra to join the association, as the membership is not to be confined to physicians and scientists, but extended to laymen as well.

Measures Taken to Keep Rats Out of Porto Rico.—Following the proclamation by the Public Health Service that Porto Rico is now free from plague, a systematized rat-proofing of buildings is to be inaugurated by the Federal Government in the island, with a view of avoiding future outbreaks.

Leprosy in the United States.—Two cases of leprosy have been reported in Michigan during the present year, in persons who

have resided in the State for a number of years. During the calendar year of 1911 there were reported in the United States forty-one cases of leprosy, which were distributed among nineteen States. This brings to general attention the fact that there is no definite policy which will act uniformly throughout the country for the control and segregation of lepers.

Award of the Schaudinn Medal.—It is announced that the Schaudinn Medal has been awarded to Dr. Chagas, of the Oswaldo Cruz Institute, Rio de Janeiro, for his discovery of the trypanosome which is the etiologic agent of epidemic thyroiditis.

Naval Medical Reserve Corps.—A bill "to increase the efficiency of the Medical Department of the United States Navy" was passed by the Senate on August 12. The bill provides "that a medical reserve corps, to be a constituent part of the medical department of the navy, be established under the same provisions, in all respects (except as may be necessary to adapt the said provisions of the navy), as those providing medical reserve corps for the army, and as set forth in the act to increase the efficiency of the Medical Department of the United States Army, approved April 29, 1908."

Clinic in Vienna.—Announcement has been made of the opening in Vienna, Austria, of a clinic for the study of cerebro-spinal meningitis, under the direction of Dr. Berthold Beer. The clinic has been founded and endowed as a memorial to the late Mr. E. H. Harriman, of New York, and will be open to American physicians studying abroad.

New Tuberculosis Hospital.—The King Edward Hospital, for the treatment of advanced cases of pulmonary tuberculosis, of Winnepeg, Manitoba, was put into active service July 27, when thirty-five patients were installed. The hospital was formally opened by the Duke of Connaught on his recent visit to the city.

Nurses to Meet in San Francisco.—The International League of Nurses, in session at Cologne, Germany, on August 6 elected Miss Goodrich, of New York, president of the league, and selected San Francisco as the place for the next convention in 1915.

The Louisiana State Board of Medical Examiners will meet November 4, 5 and 6. All applications must be in the hands of the secretary ten days preceding the first day of meeting. Dr. A. B. Brown is secretary, at 104 Baronne street, New Orleans.

Personals.—Dr. E. M. Hummel has recently been elected a member of the American Neurological Association.

Dr. W. H. Seemann was elected bacteriologist of the City Board of Health, to succeed Dr. P. E. Archinard.

Dr. Bernard H. Smith has resigned, after seven years' service as chief of the United States Food and Drug Inspection Laboratory in Boston.

Professor Dr. H. Strauss, of Berlin, and Professor Dr. Carl von Noorden, of Frankfort, Germany, will lecture at the New York Post-Graduate School and Hospital in October.

Dr. R. F. L. Dunlap, of the Bureau of Chemistry, has resigned, to accept a commercial position in Chicago.

Removals.—Dr. W. F. Hagaman, from Norwood, La., to 500 Haskell avenue, Dallas, Texas.

Dr. M. C. Foster, from Shreveport, La., to Oklahoma City, Okla.

Dr. T. F. Long, from Shreveport, La., to Moffat, Colorado.

Dr. Charles A. Bahn has removed to the Cusachs Building, New Orleans.

Died.—On September 4, 1912, Dr. W. J. McGee, secretary of the Inland Waterways Commission, at Washington, D. C.

On August 28, 1912, Dr. David Blaustein, of New York, aged 46. Dr. Blaustein was well known throughout the country as an educator, and was a member of the Faculty of Columbia University at the time of his death.

On September 2, 1912, Dr. M. J. Elgas, of New York, aged 68. Dr. Elgas was identified with the public schools of New York City for forty years.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Essays on Genito-Urinary Subjects, by J. BAYARD CLARK, M. D. William Wood & Co., New York, 1912.

A collection of ten essays, which the author has been led to publish in this form owing to the interest provoked by them when they appeared in various journals. Probably the most interesting are those on "Tuberculous Kidney," "Gonococcic Infections and the Physician's Responsibility," and "Gonorrheal Prostatis," but they are all well written and quite readable. C. C.

The Blood of the Fathers, by G. FRANK LYDSTON, M. D. The Riverton Press, Chicago, 1912.

This is a plea for marriage control and matrimonial discrimination for the protection of the unborn. "We go on hanging and jailing criminals and ignoring the children from whom criminals are made! We go on paying out for the cure of crime more money than we pay for our children's education."—Excerpts from the preface, which gives one the *raison d'être* of the work, a play in four acts of intense interest. The dramatic form has been chosen because of its greater effectiveness in driving home a lesson *à la* Bernard Shaw. A good book for all to read and to ponder over. C. C.

Sexual Impotence, by VICTOR G. VECKI, M. D. W. B. Saunders Company, Philadelphia and London, 1912.

We have reviewed and recommended previous editions of this valuable little work. We can renew our approval on the publication of this, the fourth, edition.

The chapters on anatomy and on physiology have been revised, but most of the changes and additions have been made on the subject of treatment.

We are pleased to note that the author still denies any efficiency to damiana, yohimbin, muiracithin and the like. While he feels sure there is no real aphrodisiac in existence, he naively admits that he has not given up the search for it. It is comforting to be told by him that he will report on some such remedy later, "if worth while." C. C.

Gould and Pyle's Cyclopedia of Practical Medicine and Surgery. Second edition. Revised and enlarged, by R. J. E. SCOTT, M. A., B. C. L., M. D. P. Blakiston's Son & Co., Philadelphia, 1912.

This work, published in two large volumes, is true to its title, presenting, as it does, practically everything now known in the fields of medicine and surgery, in a brief but comprehensive form. The material is arranged

in alphabetical order, and illustrations are used extensively where needed. For any medical library—particularly of the busy medical man—this work must be of material and welcome service. It would be invidious to select any group of articles for specific review, for the quality of all is attested by the character of the contributors, representing the authorities on the topics treated.

Drugs and diseases, anatomy and physiology, poisons and antidotes, diagnosis and treatment are all handled as each applies.

There is no intention to present a system of medicine and surgery, but, as a practical cyclopedia of practical information, the work is a success.

DYER.

Psycho-Therapy, Including the History of the Use of Mental Influence, etc., by JAMES J. WALSH, M. D., Ph. D. D. Appleton & Co., New York and London, 1912.

It will be worth the while of both the student in medicine and the graduated physician, young or old, to read this book, for it touches the lines which in modern medicine practice are so often forgotten or overlooked. The excellent style of the author makes the perusal easy and full of a growing interest as the pages pass.

Dr. Walsh has made no attempt at a profound exposition of the historical and academic sides of mental healing; but he submits enough of the evolution of the subject to keep his reader *en train* until the meat of the book is reached, viz: the application of suggestitve therapeutics to specific groups of diseases, and, let it be said, the catalog of diseases related to mental amelioration is large indeed.

Drugs are not relegated, and the author clearly states the limitations of psychic therapy to each disease—but there is a plea, in the midst of a scientific discursion, for a more human care of the sick—with the art of medicine applied while the science of medicine is employed.

We may differ with much of the theory advanced, and we may, too, stop with the author at the barrier of mystery, which has as yet stood between our intelligence and the explanation of psychic experiences and related miracles, but the facts in all cases we admit, with him, and, also with him, urge the search for enlightenment, to disperse the evils of anachronistic practices of militant cults by the study of psychic medicine, experiences and therapy, along legitimate lines, inspired by the genius of the Force which governs all.

DYER.

Infant Feeding, by CLIFFORD G. GRULEE, A. M., M. D. W. B. Sanders Company, Philadelphia and London, 1912.

With introductory chapters discussing the normal attributes of the infant, with reference to feeding, giving anatomical and physiological elements involved, the author proceeds to the discussion of infant feeding, at the breast and artificially.

The feeding of infants in health and disease is reviewed, and some particular diseases are instanced; most of them, quite properly, related to the intestinal tract.

Morbid and anomalous conditions occurring in connection with feeding are discussed, and a number of excellent illustrations elucidate the text.

Altogether a good, practical work on the subject undertaken, and full of suggestions gathered from experience.

DYER.

Progressive Medicine. Vol. II, June, 1912. Lea & Febiger, Philadelphia and New York.

This excellent quarterly presents in the current volume articles by Coley (Hernia), Gerster (Abdominal Surgery), John G. Clark (Gynecol-

ogy), Stengel (Diseases of the Blood, etc.) and Edward Jackson (Ophthalmology).

As usual, each article, aside from the personal equation of the author, is a review of the recent advances in the particular field. Stengel's article takes up such timely topics as leukemia, Hodgkin's disease, pernicious anemia, hemophilia, purpura, etc., all related conditions, besides other diseases of like importance. Jackson reviews recent subjects of importance, and the other contributors have no less interesting nor less valuable contributions.

Always a welcome addition to the convenient means of abstracted medical and surgical advance. DYER.

Text-Book on Health. A Text-Book of Hygiene for Pupils in the Lower Grades, by CARL HARTMAN, B. A., M. A., and LEWIS BRADLEY BIBB, B. S., M. D. Published by E. Steck, Austin, Texas.

This little book has many points of merit. Above all, it is reduced to simples, which the youngest reader can comprehend. The illustrations are original, practical and suggestive, and the text throughout is what it claims to be—a primer in health.

No attempt at arbitrary divisions of the subject is made—all the better for the scholar, who reaches the knowledge of stated facts on their merits in each chapter. The arrangement of questions at the end of each chapter adds to the value of the work as a school book.

Among the primary text-books on health topics which have appeared recently, this little book must take its place among the best. DYER.

Clinical Disorder of Heart-Beat, by THOMAS LEWIS, M. D., D. Sc. M. R. C. P. Shaw & Sons, London; Paul B. Hoeber, New York.

This excellent hand-book acquaints the students and practitioners with the terms now used, viz: sinus arrythmia, heart-blocks, premature contractions, paroxysmal tachycardia, auricular fibrillation, alternation of the pulse, to designate six common disorders of the cardiac mechanism.

It goes into the details of both the definition and the demonstration of these common types of cardiac disorder.

While it is admitted that the common maladies of the heart can be recognized and identified, most of the time, with the aid only of touch, sight and hearing, simple means, yet far more accuracy, in view of elucidating a doubtful opinion, precise graphic methods or study (for instance, with the Dudgeon sphygmograph, a single and portable piece of apparatus) are very valuable. This graphic study certainly takes time, energy, and besides it requires some expertness in cardiac pathology, which the ordinary practitioner is not expected to possess. Yet, any decent practitioner seeks newly-acquired information to bring himself abreast of the times. It certainly behooves all practitioners, if not to acquire a detailed acquaintanceship with new principles, at least to grasp them and become aware of their influence upon the care of patients afflicted with common maladies.

For that purpose, this book is warmly praised and highly recommended. E. M. D.

International Clinics. Vol. II, twenty-second series. J. B. Lippincott Company, Philadelphia and London, 1912.

This volume, among other capital articles on diagnosis and treatment, medicine, pediatrics, neurology, surgery, obstetrics, ophthalmology and otology of real practical value, contains three distinctly interesting chapters, namely: a symposium on anesthesia, the science and practice of eugenics or race culture (continued from March issue), and the National Insurance Act (1911) for the United Kingdom. E. M. D.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1912.

Digestion and Metabolism, by Alonzo Englebert Taylor, M. D.

Text-Book of Pathology, by J. George Adami, A. M., M. D., F. R. S., and John McCrea, M. D., M. R. C. P.

A Textbook of Practical Therapeutics, by H. A. Hare, M. D. B. Sc. Fourteenth edition, enlarged, thoroughly revised and largely rewritten.

Principles of Human Physiology, by Ernest H. Starling, M. D., F. R. C. P., F. R. S.

Diseases of the Hair, by George Thomas Jackson, M. D., and Charles Wood McMurtry, M. D.

Manual of Chemistry, by W. Simon, Ph. D., M. D., and Daniel Base, Ph. D. Tenth edition, thoroughly revised.

Progressive Medicine, edited by Hobart Amory Hare, M. D., and Leighton P. Appleman, M. D. September 1, 1912.

Elementary Bacteriology and Protozoology, by Herbert Fox, M. D.

J. B. LIPPINCOTT & CO., Philadelphia and London, 1912.

The Pituitary Body and Its Disorders, by Harvey Cushing, M. D.

Pharmacology and Therapeutics, by Horatio C. Wood, Jr., M. D.

Practical Anatomy, by John C. Heisler, M. D.

International Clinics. Volume 3, twenty-second series, 1912.

C. V. MOSBY COMPANY, St. Louis, 1912.

Pellagra, by Stewart R. Roberts, S. M., M. D.

Arteriosclerosis, by Louis M. Wayfield, A. B., M. D., with an introduction by W. S. Thayer, M. D.

The Wassermann Reaction, by John W. Marchildon, B. S., M. D.

PAUL B. HOEBER, New York, 1912.

For and Against Experiments on Animals, by Stephen Paget, F. R. C. S.

Landmarks and Surface Markings of the Human Body, by L. Battle Rawlings, M. D., B. C., F. R. C. S. Fifth edition.

Clinical Disorders of the Heart Beat, by Thomas Lewis, M. D., D. Sc., M. R. C. P.

What to Do in Case of Poisoning, by William Murrell, M. D., F. R. C. P. Eleventh edition.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1912.

The Surgical Clinics of John B. Murphy. Volume 1, No. 4, August, 1912.

P. BLAKISTON'S SON & CO., Philadelphia, 1912.

A Manual of Pharmacy for Physicians, by M. F. DeLorme, M. D., Ph. G. Third edition.

MISCELLANEOUS.

An Essay on Hasheesh, by Victor Bronson. (Medical Review of Reviews, New York, 1912.)

Public Health Reports, Nos. 28, 29, 30, 31, 32. Vols. 27 and 28. (Washington Government Printing Office, 1912.)

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans

For August, 1912.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	3	3	6
Intermittent Fever (Malarial Cachexia)	2	4	6
Smallpox			
Measles			
Scarlet Fever	1		1
Whooping Cough			
Diphtheria and Croup	1		1
Influenza	1	1	2
Cholera Nostras			
Pyemia and Septicemia	2		2
Tuberculosis	28	32	60
Cancer	22	3	25
Rheumatism and Gout	1	1	2
Diabetes	5		5
Alcoholism	1	1	2
Encephalitis and Meningitis	3	1	4
Locomotor Ataxia	2	1	3
Congestion, Hemorrhage and Softening of Brain	19	10	29
Paralysis	2	1	3
Convulsions of Infants			
Other Diseases of Infancy	13	4	17
Tetanus	1	3	4
Other Nervous Diseases	6	2	8
Heart Diseases	50	30	80
Bronchitis			
Pneumonia and Broncho-Pneumonia	10	9	19
Other Respiratory Diseases	1	2	3
Ulcer of Stomach			
Other Diseases of the Stomach	4	4	8
Diarrhea, Dysentery and Enteritis	27	25	52
Hernia, Intestinal Obstruction	2	3	5
Cirrhosis of Liver	7	6	13
Other Diseases of the Liver	4	1	5
Simple Peritonitis	1		1
Appendicitis	5	3	8
Bright's Disease	27	25	52
Other Genito-Urinary Diseases	10	11	21
Puerperal Diseases	3	5	8
Senile Debility	4	2	6
Suicide	8		8
Injuries	22	18	40
All Other Causes	21	13	34
TOTAL	319	224	543

Still-born Children—White, 21; colored, 30; Total, 51.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 14.07; colored, 26.61; Total, 17.46.

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

Mean atmospheric pressure 30.02
Mean temperature 82.9
Total precipitation ..... 4.93 inches
Prevailing direction of wind, south.

New Orleans Medical and Surgical Journal.

VOL. LXV. NOVEMBER, 1912. No. 5

Original Articles.

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

Analysis of One Thousand Cases in Psychiatry.

By E. M. HUMMEL, M. D., Visiting Neurologist, Charity Hospital, and HENRY DASPIT, M. D., New Orleans, La.

Approximately four years ago one of us (H.), wishing to develop a psychopathic clinic, sought permission to assume medical care of the city's indigent insane then confined in the House of Detention. This was granted by the authorities, and some facilities were provided for the proper nursing and care of the patients. In this manner the work was conducted until March 10, 1911, when the City Hospital for Mental Diseases was completed and occupied. The building was planned and erected upon our advice, and that of others interested in this class of unfortunate people, and now stands as a credit to the community, whereas formerly the city was subject to reproach for the lack of such facility.

The hospital has a capacity of 100, is well equipped with laboratory and treatment facilities, and the space is properly disposed into wards and dormitories, etc., although the yard space is not adequate. The building is screened throughout, and provided with suitable means for nursing and caring for the cases otherwise. The

purpose of this institution is to afford medical care for the indigent cases of mental disease residing in this parish until cure is effected or until transfer to one of the State hospitals can be accomplished. This hospital is now taking care of all such cases, and is incidentally saving the municipality approximately $20,000 a year. We respectfully invite the attention of the medical profession, and others intelligently interested, to this work. It is a matter of some regret that it was necessary to place the building on a portion of the same square occupied by one of the city prisons, as, although the hospital has been entirely separated by a brick wall and placed exclusively under the control of medical authority, there is a tendency for this building to be confused in the mind of the public with the prison, both on account of an old and inhuman tendency in the average layman's mind to confuse mentally deranged people with criminals and to assume that they are cared for under prison conditions, and also to the equally inhuman indifference of the average man to the plight of this class of sick people.

We wish to submit a study of the first 1,000 cases which have passed under our observation since the inception of this work, and in doing so we think it allowed to us, to include with matters of purely medical interest, a few observations of sociologic and similar importance. The student of psychiatry who views his subject broadly may profit much otherwise than in the accretion to his knowledge of morbid mental phenomena, by learning of the human conditions, both morbid and normal, under which psychopathic phenomena develop. In such a study the attention is led into all the circumstances that condition the mental life of people, therefore, into matters often foreign to medicine. We think such an analysis also reflects much of peculiar interest to the community from which the material is drawn. Thus you will notice, by going over the material, the relative prevalence, in number and kind, of the various psychoses, in the different types and classes of population, the influence of race, and many sociologic and other conditions.

By reference to the table* of total cases it will be seen that practically every kind of psychosis has been encountered. We will deal with the several groups in their order, and offer the special deductions we have been able to make in connection with each.

It is considered the civilized world over that the two grand factors in the causation of insanity are syphilis and alcohol. Kraft-

Ebing paraphrased it well when he styled it "Syphilization and civilization," for the prevalence of syphillis is great, and the abuse of alcohol is the chief folly of civilization. But we will deal with syphilis, for the moment, which yields second place to no agent in its deleterious work on the central nervous system, unless it is alcohol, with which, however, it most often operates in conjunction, and probably breaks even. As usual, a great proportion of our cases are that one grand and terrible malady—general paresis. The German school of neurologists had always been inclined to maintain that syphilis was the remote cause of paresis, and since the inception of the Wassermann method their position has been well confirmed. We are thoroughly convinced that general paresis does not develop unless syphilis has been acquired or inherited, and, through years of its action upon the central nervous organ, has prepared the necessary pathological basis. In psychiatric work the facilities for getting accurate histories of primary infection are frequently not good (if verbal histories from the patient are ever to be regarded as of much value), but we have had recourse to other means of determining whether syphilis was or had been present: such as the Wassermann test, and by noting traces of syphilitic activity in the nervous system and other tissues of the body. Out of fourteen selected cases of paresis, thirteen Wassermann tests were positive

*TABLE OF TOTAL CASES.

	W. M.	W. F.	C. M.	C. F.	Total.
Alcoholic dementia	7	2	—	—	9
Alcoholic psychosis (acute)	47	2	7	2	58
Alcoholic psychosis (post)	42	6	15	3	66
Alcoholism (no psychosis)	20	5	3	1	29
Korsakow's psychosis	2	1	—	—	3
Constitutional inferiority	25	11	3	4	43
Dementia præcox	40	10	13	9	72
Paranoidal dementia præcox	12	4	3	1	20
Senile Dementia	20	19	6	11	56
Katatonic stupor	3	—	4	—	7
Epilepsy	22	8	16	3	49
General paresis	51	16	30	8	105
Psychosis due to gross brain lesions	24	2	8	—	34
Hysterical psychosis	3	1	1	—	5
Imbecility	32	10	18	10	70
Intoxication psychosis	5	2	6	5	18
Manic-depressive psychosis	25	24	9	18	76
Melancholia	6	18	—	6	30
Psychosis due to organic brain disease	13	3	10	7	33
Paranoia	7	6	3	1	17
Paranoid psychosis	18	10	2	6	36
Psychosis after acute and exhausting disease	10	5	3	4	22
Puerperal and lactational psychosis	—	4	—	—	4
Pellagra with psychosis	3	2	1	—	6
Congenital deafness	—	—	—	1	1
Drug addiction	5	4	3	2	14
Huntington's chorea	—	—	1	—	1
Multiple sclerosis	1	—	—	—	1
Psychasthenia	1	—	4	1	6
Senility	2	7	3	3	15
Not insane	30	13	8	2	53
Unclassified	21	10	6	4	41
					1000

and one doubtful. Nonne has recently employed the so-called "four-phase" test with results that seem conclusive. This embraces (1) Wassermann blood test, (2) Wassermann test of the spinal fluid, (3) estimate of the globulin content of spinal fluid, and (4) cytological count of fluid. In a large material, the test confirmed every paretic as having had syphilis. When all four of these tests are positive, parasyphilis is diagnosed beyond question. We are commencing to use the four-phase test in the study of our paretic and tabetic cases, and will have some interesting results to publish later.

It developed from study of our cases that, of the other extraneous factors tending to cause the development of paresis in syphilitics, alcohol figures most conspicuously; at least, it was the most palpable factor. We also noticed that that type of person who is sthenic in constitution and who applies his energies insistently to his work and is inclined to worry and fret, is most apt to become paretic under the stress of old syphilis; but various other undetermined agencies are secondarily in individual cases, no doubt. It will be noticed, by reference to the table, that thirty-eight of our paretics were colored. Being aware of the rarity of paresis and para-syphilitic conditions in full-blooded Africans, we were careful in taking histories of cases during the last two years, to notice the degree of color in the subject, with the result that every colored paretic admitted during that time was noticed to have some admixture of white blood. The early material was not scrutinized with this purpose in view, but our memory of the earlier cases is that no full-blooded African was seen among them.

The age at which paresis develops is a matter of some interest. Of our total cases, one developed between the age of 10 and 20; this was juvenile paresis from inherited syphilis. Eighteen developed between 20 and 30, thirty-four between 30 and 40, thirty-six between 40 and 50, and eight between 50 and 60. We have also been impressed with the fact that there are two types of paresis. One is the kind that develops rapidly, and rather quickly comes to a fatal termination, patients in cases of this kind showing comparatively few para-syphilitic symptoms, and giving markedly positive Wassermann reaction with the blood and spinal fluid. The other type is the so-called tabo-paretic, where a para-syphilitic pathology has existed for perhaps years and where the onset of the paretic symptoms is insidious and the progress of the disease is very slow.

In the study of paretic material one is frequently depressed with

the reflection that we are dealing with an absolutely malignant and incurable disease. Several years ago two New York neurologists (Dana and Hunt) advanced the claim that they had effected cures in a number of paretics with anti-syphilitic remedies. We have not hesitated to apply specific treatment vigorously in numerous cases, including the administration of salvarsan, but the results have been disappointing in genuine paresis. In two instances we saw salvarsan apparently hasten the progress of the disease. However, we have observed cases of acute syphilitic activity in the brain, giving symptoms greatly simulating paresis, respond splendidly to treatment, and we are convinced that this is the type of case which, under treatment, gave rise to the impression that general paresis may be curable at times. These cases so closely resemble incipient paresis of the rapidly-developing type that we do not think it is in the power of any diagnostician to make a positive and immediate distinction, and we hesitate to deprive the case of this one chance of recovery. We, therefore, advise that all cases of early paresis of the type mentioned should have salvarsan or the vigorous application of mercury. Then, again, there is a type of case with the traces of para-syphilis in his nervous system who, because of these changes, is susceptible to episodal psychoses, especially from alcohol. We have repeatedly noticed the ready susceptibility of para-syphilitics to the influences of alcohol, and on a number of occasions have seen a psychosis of several weeks' duration excited thereby or by some derangement of the body chemistry from other causes. There are many cases of para-syphilis who simply should be rated as cases of organic nervous disease, and who do not suffer much inconvenience therefrom, but are merely rendered unstable and deficient in nervous capacity. If they develop a psychosis, the examiner, in the absence of an accurate history, is misled by the signs of para-syphilis present (Argyle-Robertson pupils, Westphal's sign, etc.). In these latter cases anti-syphilitic remedies are merely good tonics.

If we now turn to the next great group of psychoses we will see something of the blighting effect of alcohol on the brain. It was formerly thought that alcohol did most damage to the kidneys and blood vessels, but later studies have shown that the central nervous system suffers mostly. In our group of alcoholic psychoses we had twenty-nine cases of aggravated drunks and inebriety without essential psychosis otherwise. We eliminated these, and this reduced

our alcoholic psychoses to 126—still the largest number of psychoses from any cause. Of our alcoholic dements, all were, of course, incurable. The post-alcoholic psychoses showed a total of forty-three incurable cases—twenty-four recovered and two died. Among the acute cases (delirium tremens), two died; the balance recovered. One case of Karsakow's psychosis died and one recovered, apparently.

But any study of alcoholism which is limited to the frank psychosis of that direct origin is incomplete and deceiving, for we thus lose sight of its far-reaching effect in the transmission of inferior heredity to offspring. The frequency with which we elicited histories of alcoholic abuse in the parents of imbeciles, cases of constitutional inferiority and epilepsy, bears out the contention of authorities to the effect that alcohol goes a far way towards producing degeneracy in the race and filling asylums for defective persons. We have, in the examination of our cases, been impressed with the fact that all alcoholic conditions are serious injuries to the body. The tender nerve trunks, tremulous muscles, flabby tissues, frequency of albumin, and casts in the urine, clouded eye fundi, and many other signs of deranged body function all seem to argue that such a condition is more liable to leave permanent traces than an acute infectious fever. Whilst it is a custom to regard the plight of a delirium tremens case as a comical affair, he is, nevertheless, a dangerously sick patient, frequently. We noticed that the quiet case, who calmly entertains his absurd delusions, is very apt to develop wet brain and die. The acute psychosis of alcohol furnishes the very best opportunity for studying hallucinatory phenomena, as in vividness the hallucinations are not surpassed, if equaled, by such in any other condition. This, again, seemed to be an argument in favor of a pathology for all insanities, as we here have a chemical poison producing one of the clearest and most accentuated types. A peculiar type of delusion seems to be characteristic of acute alcoholic psychoses, namely: to the effect that the subject has received bodily injury, the patient quietly insisting that he has been shot, stabbed, or otherwise violently wounded, in spite of demonstration and explanation to the contrary. In the study of our material we made many tests of the Quinquad sign, and found it reliable if properly tried.

Some of the other things we learned in our observation of alcoholic cases were: (1) That the psychopathic temperament and other pathological states of the central nervous system are frequently

made manifest by alcohol, or rather that the subject is rendered more susceptible to its effects thereby; (2) that the psychopath and neuropath is frequently a periodic debaucher and "booze-fighter" (if we may be permitted this expression), because his temperamental imbalance subjects him to nearly impossible moods of psychic pain or some other tedium, in which he flies to the wine-cup as a sort of attenuated suicide. When the debauch has lasted a while he swears off, but he is not sober when he swears, and, being primarily weak, he is very apt to become an inebriate in time; (3) that women bear the effect of alcohol very poorly. All our cases showed at least temporary renal lesions and the other signs of systemic poisoning. We feel safe in saying that women are also more susceptible to the immediate effect of alcohol, and get drunk more quickly than men, and that alcoholism in the mother is more apt to produce degenerate offspring than the same offense in the father, for obvious reasons.

Many of the above remarks will apply to the abuse of narcotics. However, it will be noticed, by referring to our table, that we saw comparatively few drug addicts. As to cocain, we saw only two cases of addiction to this drug—one of acute intoxication, which recovered in twenty-four hours, another of psychosis of approximately one week's duration, and assuming a paranoiacal tendency without hallucination. One case was that of a young man who had been for a number of weeks smoking a mixture containing belladonna leaves for asthma. We had occasion, in a number of our alcoholic cases, to notice the malignant effect of absinthe. Lack of space does not permit of extensive comment, but we may say that it is closely allied to opium in its effect, but more quick and damaging. Its sale as a beverage is now rightly forbidden by law.

If we turn again to one of the larger groups we will notice that dementia precox has yielded nearly 10 per cent of our material. Presumably, this psychosis is familiar in its manifestations—*i. e.,* its common characteristics, the age at which it develops, and the later peculiar signs. Since Krapelin's original description of this condition a great deal of study has been devoted to it, and as it has been ascertained that only a limited number of cases conform to his first description, several sub-groups have been recognized. The main difficulty is with the early manifestations. Later, when the case develops fully, the characteristic dementia,with intense apathy and shallowness of mentation, all cases look strikingly alike. Relative to the early symptoms, hallucinations pertaining to religion are

almost characteristic of dementia precox. This is in accordance with expectations, as we are aware, from the studies of Stanley Hall and others, that the adolescent mind is easily attracted by religious contemplation. We were also struck with the resemblance of dementia precox to intoxication psychoses from disordered metabolism and infectious disease. Some of the more recent conceptions of dementia precox lean to the intoxication theory, but we still do not know. Regarding the dementia proper of this condition, it seems to have a greater tendency to destroy the affective attributes than to disorder those pertaining to intellection. The intense apathy is such that the strongest attachments are wiped out. We have seen the most intense and enduring human emotion totally effaced, and a mother absolutely indifferent to her offspring. We believe that deflections peculiar to dementia precox, but rather mild in expression and never attaining to a real psychosis, frequently develop in adolescent subjects, and afford an explanation of truancy and disregard of parents and family attachments, with a tendency to rebel against parental authority, etc. Though we recognize a toxic element in dementia precox, primary agenetic failure in the structures subserving adult and mature mentalization must be admitted also. This is further suggested by the fact that some cases partake jointly of the nature of paranoia, and represent an admixture of the two diseases.

Of all psychoses, paranoia is the one in which the pathology can least be conceived of. On the other hand, the evolution and clinical expression of the condition suggest inherent failure of the neuronic architecture of the cerebrum in some refined detail whereby the subject is rendered unable to attain to full and balanced mental stature. Some speculation has been indulged in to prove that paranoia is probably produced by the complex conditions of civilization and community life in some such manner as Freud has theorized regarding the development of hysteria. One case under our care seemed to prove that pathologic brain states are essential. In this instance the patient was a lone fisherman, residing absolutely to himself and never seeing another human being except when delivering his fish to the dealer, who also supplied him with merchandise. His paranoia was of the purest type, and led him into the city to investigate the system of persecutory agencies he fancied were in operation against him. By reference to the table, it will be noticed that we recognized a paranoiac state to designate that

peculiar condition of mental inferiority characterized by eccentricity, misanthropy and suspicion, without as yet any established delusions. It is a distinction with a difference only of degree from paranoia proper, as we saw cases develop actual delusions while under our observation. We have observed instances in which it seemed that attempts to educate or over-educate neuropaths caused the subject's neurotic failings to assume this objectionable form of expression. It is obvious that broad and complete education of a neuropath is impossible, and the imperfect product is very apt to have his bias accentuated or conditioned by pedagogic efforts. Twelve of our paranoia cases were colored, but all had a rather liberal admixture of white blood, and all had made attempts at education, the most of them at higher education. Here, then, we have instances of a little learning proving dangerous to poorly-constituted minds, as it is evident that they are only able to grasp part of the whole subject taught them, and they are usually more damaged than benefited thereby. The whole question of the education of "exceptional" children seems to us to be implied in teaching the so-called exceptional child a useful manual occupation, and not bothering his head with academics.

Within recent years the expression, "constitutional inferiority," has been used in psychiatry to designate a state of mental or nervous deficiency, not at all, however, amounting to imbecility, or to such a degree of limitation as to readily characterize the case as one of delinquency. Such cases might traverse the phases of childhood and not betray any sign of their deficiency, unless it be their inability or unwillingness to follow the average curriculum, or else they may be perverse or incorrigible. The real mental state is disclosed later, during or after puberty, when they show lack of aptitude for advanced education or inconstancy, and lack of capacity for any class of work. They show a paucity of ideas and shallowness of thought. Some one of the strong instincts might be developed in a predominant way or deflected in such a manner as to lead the subject into objectionable behavior, but usually the imperious instincts are not so obtrusive. Inadequacy and negativism, associated with timidty and lack of resolution, are the most essential things, and such subjects are most often drones and loafers, with little or no capacity for exertion. We have usually noticed that the parents, in such cases, are psychopathic, syphilitic, or alcoholic. Syphilis, in such instances, seems to operate by inhibiting the de-

velopment of the nervous system, and not by the production of lesions. These subjects usually have the outward appearance of normal mental and physical constitution, and their shortcomings are regarded by others as faults, for which they are blamed, and various harsh names are applied to them in common parlance. Neither will the removal of an adenoid, possibly present, cure the case. It is the type of condition we have frequently seen in Europeans whom, we ascertained by investigation, were encouraged to emigrate. Apropos, we have repeatedly had the opportunity to convince ourselves that there is a quiet, concerted activity among Europeans, not excepting the government officials, to encourage the emigration of psychopaths and ne'er-do-wells to America. The cases we have studied were predominantly of Latin origin, even considering the excess in numbers of this element in the community. The negro race afforded few instances. One of the commonest dissipations of the constitutionally inferior case is the excessive smoking of cigarettes, and we were, on this account, led into some speculation as to the possibility of this as a contributing cause. We became convinced that it does undoubtedly aggravate the condition. Nicotin poisoning depresses the nervous functions, and we have little fear of contradiction in observing that a certain class of New Orleans cigarette affords its user one of the best and quickest means of poisoning himself. It seems that the excessive indulgence of this habit by young boys is practically as harmful as the smoking of opium by adults.

In regard to race, it will be noticed that only 298 of our total cases were colored. This is significant, as we have a large colored population, and as it is fair to assume that practically all colored people in this parish developing psychoses of any duration passed under our observation. It is a matter of regret that we did not begin to make written notes of the admixture of white blood in colored cases until two years ago. We, therefore, have no means of ascertaining the exact number of full-blooded Africans appearing with psychoses. From memory we feel safe in saying that they were rare, and that the vast majority of all colored cases were mulattoes. Many of our cases were very bright mulattoes, and we, on a number of occasions, were acquainted with circumstances where the near-white were sneaking across the color line. In our efforts to settle the color of a number of cases we found that a certain slaty discoloration of the retina, disposed in streaks along the

vessels and nerve striations, was seemingly a good criterion of the slight admixture of colored blood. This darkening of the retina is different from that of white brunettes. While we do not claim to be well enough acquainted with the retinal appearances in people of various complexions in the white race to insist upon this as absolutely distinctive, we feel justified in suggesting that the above findings in the retina of a person with wavy hair and heavy features, and other circumstances pointing to the admixture of African blood, are of value in solving the question.

Our epileptic material showed nothing out of the ordinary, aside from a few points regarding aura. Some of the peculiar psychic disturbances preceding convulsions were sudden vivid presentations of memory images to the subject's consciousness, in which he felt himself placed in previous surroundings or circumstances. These were so pronounced as to force upon the individual the conviction that he was really in the circumstances revived by the memory presentation. In the case of a girl, the subject had been once left for several days alone on a shanty-boat, where she was frightened and lonely. The memory images directly associated with this circumstance, and the emotions of same, constituted the aura, and she could not be convinced that she was not really in the surroundings referred to. The aura lasted a number of hours before a convulsion. Another case would experience the emotional revival of an experience he had had when a boy, when he was among stampeded horses in a lot, and was greatly frightened thereby. In none of these circumstances did the subjects actually hallucinate in any way regarding the material surrounding pertaining to the aura, but the emotion associated with the experience was so intense and complete as to force upon them the conviction that they were in the fancied surroundings, notwithstanding the fact that they had the means of correcting themselves through normal sight, hearing, etc. One blind epileptic saw flashes of light and distorted objects as aura. He had become blind when 16 years of age. Here was demonstrated the fact that epileptic aura are psychic excitations from some cerebral perturbation, as in this instance the patient experienced sight phenomena, though the ocular conduction apparatus was destroyed years before. The so-called transient or temporary psychoses immediately associated with convulsions were noted to be peculiar in one respect, in that the patient seemed frequently to follow an isolated idea or desire with utter disregard for other con-

ditions—very much resembling somnambulism. In two instances this led to acts of violence on the street, no one realizing at that time that there was any derangement of the subject's mind. In another peculiar instance a young man walked into a neighbor's house and, without any explanation or preliminary parley, seized a girl of distant acquaintance and attempted to carry her to the church to marry her. We again noted the frequency of organic lesions in the nervous system in epileptics, for all our cases were subjected to careful neurological examination. Most of these lesions were in the nature of old injuries to the brain at or soon after birth.

We take the liberty to refer, in a briefly descriptive way, to maniac depressive-psychosis, on account of its frequency and on account of the fact that the physician is called upon to give an explanation and prognosis. Although medical treatment has no place in the case, considerable satisfaction is afforded by proper understanding on the part of the medical attendant, and correct advice on several points. As its name implies, the psychosis consists of two phases—maniac excitement and depression, with a normal interval. Mania is characterized by heightened psychic pressure, usually with acceleration of the mental processes. Mentalization is disordered chiefly or solely by the inordinately high psychic pressure, causing the mental processes to operate too rapidly, leading to headlong speech and conduct, with such faults of judgment, implied in a hasty, superficial train of thought. The main characteristic is enhanced psychic pressure, as we always see this, but sometimes acceleration of the thought processes is wanting. The stage of depression is exactly opposite—low psychic pressure, with consequent psychomotor impedimentation or retardation. The two phases vary from weeks to months in duration, followed by recovery, but subject to recurrence. Formerly the two phases were named mania and melancholia, respectively, and the condition was regarded as two diseases, but Krapelin proved it to be one, as he observed that there was no mania without associated depression, and *vice versa*. He further ascertained that the depression of maniac depressive psychosis was different from melancholia, and that the latter was of great rarity, except at the climateric in either sex. The psychosis is undoubtedly based upon temperamental liability, often seen to slight extent in the varying moods of many well, and even talented, people. The few exceptions in which mania proper appears otherwise are instances of maniac excitement in renal and arterial

disease in persons of rather advanced age, and in the puerperium and during lactation.

Mental conditions caused by gross focal injury or disease of the brain are interesting, because of the implied question of surgical treatment. They are usually purely acquired phychoses, and the dark shadow of psychopathic constitution does not enter, as in so many other mental conditions. It is surprising how severely and how extensively the brain may be damaged without the incidence of mental symptoms. We have no space here to discuss this question, but will refer briefly to some questions of direct bearing. Modern investigation has disproved all previous assumption that mentalization is subserved by any particular ganglia or centers of the cerebrum—broadly speaking—but rather by the whole brain rind and ganglia. Moreover, mentalization seems to be ultimately founded on the elementary cerebral functions, issuing as a composite production from the association and elaboration of these. Such primal functions are widely distributed through the cerebrum. Von Monakow's theory of diaschesis was advanced to explain the temporary mental disturbances following immediately after the inception of a focal lesion. It implies that coöperative association in cerebration may be interrupted by a lesion, even distant from an important cell area, and that when recovery ensues new paths of association are established in a collateral or compensatory way, though the lesion is permanent and destructive of the elements involved. One thing, however, seems to be rather well established, namely: that the left frontal lobe of the cerebrum is rather specially concerned with mentalization, as any extensive lesion in this area practically always produces mental symptoms involving higher intellection.

But to return to more practical considerations, we studied thirty-four mental cases which, by neurological examination, showed pronounced signs of gross lesions in the cerebrum. The vast majority of them were obviously due to vascular disease with embolism, thrombus and rupture. We had one case of tumor proven by necropsy, and several cases from injury, with depressed fracture of the skull and symptoms pointing to brain injury beneath. We classed one case under this heading, which had been caused by syphilitic disease of the bone over the frontal region, resulting in necrosis and the formation of an island of bone, which sank upon the brain surface and formed adhesions in situ. Epileptic seizures

were frequently associated with psychoses induced by lesions in the cortex, especially where the lesion was caused by trauma or conditions exciting inflammatory reaction, and consequent scar formation. In vascular cases this was not so. The mental symptoms in the former instance also seemed to signify irritative reaction, whereas in the vascular cases negativism characterized the mental symptoms. These very irritative signs seemed to furnish the best indication for surgical interference. Several cases of peculiar mental disorder were noted in which the subject gave signs of a focal injury to the brain, where the history indicated that the injury had been received during childhood, and where the mental symptoms were odd and out of keeping with anything we have ever seen in an adult. Presumably the injury had hampered the mental development of the child in one particular, whereas in others the brain had developed in a normal way.

In regard to the closely allied group of cases placed under organic brain disease, we fear we did not always make a consistent distinction between such and those designated as gross brain diseases. We tried, however, to place in this group cases of diffuse disease throughout the brain involving the finer structures, and without signs of lesions coarse enough to give focal symptoms, such as disturbance in the motor tracts, etc. We did not include under this heading such cases as have a definite causation and are recognized as diseases of a special character, such as Huntington's chorea, etc. Psychoses associated with such disease are, for the most part, uninteresting, as they appear in the nature of acquired imbecility.

The intoxication psychoses were simply deliria from acute infectious disease and the absorption of noxious agents from other disease in the body. The treatment of these cases afforded us much satisfaction, as prompt recovery was the rule, and as we realized that the conditions which we had established and our efforts at treatment were everything to these patients, for, in the absence of intelligent medical discrimination between such cases and those of insanity of the more idiopathic kind, these sick people were formerly held under prison regime. The same may be said of delirium associated with exhausting disease, such as tuberculosis, etc.

Out of the six cases of pellagra, one was seen March 29, 1909, and, so far as we are aware, this was about the first case of pellagra recognized in this community.

The cases assigned as senile psychoses were instances of mental

failure from pathological involution of the brain functions—due, of course, to degeneration of the vascular system. While such psychoses represent morbid conditions in the cerebrum, they teach something of the mentality of the aged, under so-called normal conditions, for they portray the faults of senile mentality in an aggravated form. Their melancholia is an accentuation of the pessimism rather native to advanced age, and their obstinacy is characteristic of the inflexibility of the senile personality.

Old age often holds many sorrows and few consolations in conditions of ill health and poverty. In health, and with better adjustment to outside conditions, however, why should old age be other than peaceful and quiet and satisfactory to the aged themselves? Cicero, in a beautifully-conceived piece of rhetoric, "Old Age and Friendship," almost convinces you that old age, with its peace and calm, is the only time of life in which it is permitted to one to enjoy the serene pleasure of intellectual pursuits, etc., and he professes—being then himself old—to prefer it to the emotional period of youth, when violent and imperious passions may be excited in the body, and when the activities are prompted too much by impulse or fired beyond the guidance of reason. The strong passions must be dangerous, as their indulgence is rather universally regarded as risky, sometimes harmful, to the indulger. The prophet of old sang: "The almond tree shall flouish, and the grasshopper shall be a burden, and desire shall fail, because man goeth to his long home, and the mourners go about the street. . . . ." What of it if desire should fail? An aged person is not so badly off without desire, if the desire be a physiological attribute of another time of life. There is an everlasting fitness of things, and contentment and pleasure may be had with good health at any time in life, if the capacities and tastes have been properly and broadly cultivated.

However, it must be admitted that an aged person is restricted and conditioned otherwise by the state of his brain. It is still permitted to an old man to receive sense-impressions from the exterior, but he is only partially influenced thereby. Rather is he actuated by impressions and convictions which he received and assimilated before maturity. Thus does an old man resist new convictions and prefer the old to the new ultra-conservatism. But while conservatism is an asset of age, progressiveness must come from another source. Conservatism is more often proven to be the wise part, and old heads are associated in tradition with wisdom.

The Romans paid tribute to mature age in their Senatus. In the further evolution of governmental science, the Senate, or conservative branch of the Legislature, is the old man's place, and this body is so constituted as to be rendered secure against the unsafe surgings of popular emotion. Their deliberations are more respected than those of the other branch of government. We wonder whether the course of human events would have been so creditable to the race had the chloroform bottle been exhibited in ancient time. But while the youth must spend much time unlearning errors and correcting mistakes into which his headlong nature has led him, the conservative sage might degenerate into an obstructionist and fossil. Like the body, the mind of an aged person is rigid, inflexible, tardy. Age restricts both motion and emotion. Nevertheless, the parallel between body condition and mental function is not so deadly as a materialist might insist. Under average conditions, mentality suffers less from encroachments of age than the lower physiology; indeed, mentality is age's venerable attribute. It even would seem that the cerebrum were phylogenetically adapted to a longer life-cycle than the other parts of the body, as it matures later and tends to survive longer—for we commonly see the body bent under the weight of years, while the mind continues to function well in its modified way.

Non-Penetrating Injuries of the Eye.*

By D. FRED. WAIDE, M. D., New Orleans.

Eye injuries assume especial importance on account of the delicate construction of the eye as an organ of vision. Injuries which would be insignificant in other parts of the body may leave a defect which will practically destroy the vision of the affected eye.

In injuries of the eye, the cornea is of the first importance, for a cicatrix here may greatly affect the vision. This is especially the case if the injury is in the pupillary area, as an opacity here may practically destroy the sight. Even if a part only of the pupil is slightly opaque, the rays of light do not pass freely through this portion and the image does not fall harmoniously upon the retina, thus causing haziness.

The formation of the cornea aggravates the effect of injuries, owing to the fact that different layers or lamellæ of the cornea cor-

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respond to different parts of the eyeball proper. The cornea has five layers—the first and second corresponding to the conjunctiva, the third to the sclera, and the fourth and fifth to the uvea. If, therefore, one of these layers becomes inflamed, it tends to irritate the corrseponding coat of the posterior eye, thus aggravating the effects of an external injury.

The most common injuries which we meet in our clinical work are: Foreign bodies, abrasions and burns, the first being of quite frequent occurrence. While this is usually given only casual attention, it may effect irreparable damage.

The laity in general, and even physicians, regard foreign bodies too lightly. The former usually have a blacksmith, fireman or some other equally skilled in ophthalmology *try* to remove these objects, with such instruments as horseshoe nails, matches, toothpicks and what not, with the result that the injured part is probably infected, and frequently so much tissue destroyed that the resultant opacity is twice as large as it would have been if properly removed.

Foreign bodies should be removed with as little traumatism as possible, a 25 per cent solution of cocain being applied if necessary. The eye should then be irrigated with some bland antiseptic solution, and a bandage applied in severe cases. Another important point to be observed is to avoid leaving a portion of the foreign body in the cornea, as this will probably produce irritation and infection, and may result in serious injury to the eye.

Abrasions are usually due to hatpins, splinters, finger nails, pieces of oyster shells, etc. These are often hard to detect, but by using reflected light the abrasion is more easily located. In difficult cases a solution of fluorescin may be advantageously used. If this is instilled into the eye a yellowish discoloration of the conjunctiva indicates a denuded surface; if this is in the cornea, the abraded surface shows a green discoloration.

The treatment of abrasions is similar to the after-treatment of foreign bodies. Atropin is usually indicated to rest the eye during the process of repair.

The most common form of burns are those from hot irons, ammonia, lime, tincture of iodin, hot ashes and steam. In burns it is frequently difficult to determine how many layers of the cornea are injured, therefore, our prognosis should be correspondingly guarded.

Injuries from chemicals of apparently the same extent as from

actual heat may produce greater damage, as the cauterizing effect will continue until the chemical has been neutralized by the tissues and secretions, whereas the effect of actual heat ceases when the agent is removed. No attempt should be made to neutralize the acid or alkali, but the eye should be freely irrigated until the chemical has been thoroughly washed out, then the treatment should be applied as indicated for abrasions.

The effect of injuries on the eye are dependent not as much on the extent of the injury as on the location, as indicated by the two following cases, with which I shall close this paper:

While in the country a patient was struck in the eye with the smack of a whip, causing a slight abrasion of the cornea, which, under the care of a neighboring physician, healed in a few days. When the patient called at the office it was found that vision in the affected eye had been reduced to counting fingers at five feet, due to a slight opacity which had formed over the cornea at the pupil.

The second was a patient recently treated, who was burned with strong ammonia escaping from a pipe bursting in an ice factory. The cornea and conjunctiva were very badly burned; in fact, both corneæ were a grayish white, leaving only slight perception. After several weeks of treatment the left cornea cleared, but the right remained opaque, leaving half the pupil covered by scar tissue. In spite of this, the scarred eye has useful vision, measuring at this time 15/XL, the left eye, which was burned more superficially, recovering with normal vision.

Discussion on Paper of Dr. Waide.

Dr. Henry Dickson Bruns, New Orleans: Dr. Waide's short address is so practical that it deserves a little comment. There are a few points in the address that I would like to bring out. I am reliably informed that in the German Army—and the plan is adopted in the United States Army—that, no matter how small the injury to a digit of the upper or lower extremity, the surgeons are obliged to render the wound perfectly clean and to apply an aseptic dressing, and keep that dressing on until the wound is healed. I think the same plan should be pursued with the eye, which is a more valuable part of the anatomy, to most people, than a digit, although it is universally neglected. One of the crimes physicians ordinarily commit is permitting eyes to be lost from trivial in-

juries, that could have been saved. I think as soon as the eye is injured or abraded in any way we should cleanse the eye, put a bandage on it, and keep it as aseptically sealed as possible until the eye is well. Of course, I am speaking of injuries, and not of diseases of the eye. If that plan were universally pursued, thousands of eyes could be saved that are now lost, because nothing is commoner than to see an eye lost because a little abrasion becomes infected; then you have an infected ulcer. The ulcer penetrates the layers of the cornea; after a time it heals; a scar is left, for which nothing can be done. Where you have a chemical burn, practitioners in the country, especially, ought to realize that they have in milk one of the most friendly agents. If you can get a pitcher of milk, open the eye and wash it out freely with milk; in milk you have an agent that is very bland, with a slightly alkaline reaction and a little grease—all admirable qualities. Of course, the milk should be fresh, not sour.

Pharyngeal Ulcer; Report of a Case with Unusual Features.*

By JOHN L. SCALES, M. D., Shreveport, La.

As the title of this paper indicates, I shall not attempt to discuss pharyngeal ulcers in general, but limit myself to a report of a case with some unusual features, and indicate some lines of thought that have been prompted thereby. If the case proves to be as interesting to you as it was to me, I shall feel amply justified in having presented it.

On February 7, 1912, I was consulted by Mr. C. on account of some throat trouble that he said had been existing for about six months. An examination of the throat revealed an ulcer of the posterior pharyngeal wall that involved as much of the surface as could be seen by the aid of a tongue depressor, and involving the post pillars to a corresponding degree. The surface of the ulcer was covered with necrotic tissue and tenacious and offensive secretion. He could swallow liquids only, and that with great difficulty.

The following history was elicited:

The throat had been sore for about six months, during which time it had been under the observation and treatment of a very competent man in another city, who, during the course of the treat-

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ment, had employed gargles, sprays and cauteries *ad libitum.* (Incidentally, the patient stated that he thought he had almost cured it at one time by the local use of a certain nostrum that has enjoyed some local fame, but that he later took cold and it was worse than ever.) He denied any history of syphilis, and I could find no evidences of its ever having existed, although my suspicions were so strong and my questions and examination so persistent that he finally stated that the physician who had previously treated him had thought the same thing and had put him on treatment which had badly salivated him. In spite of these negative findings, I was so certain that I had to deal with a tertiary lesion that I sent him to a pathologist for a Wassermann reaction, at the same time taking some bits of tissue from the ulcer which I also sent to a pathologist for a microscopical examination.

The Wassermann having been reported positive, I felt sufficiently confirmed in my opinion, and advised the administration of "606" without waiting for a report from the microscopist.

The "606" was administered intravenously by Dr. A. A. Herold on the afternoon of February 15, and was followed by a decided reaction of chill, fever and vomiting. On the next day he was feeling well enough to return home, saying that his throat was feeling much better. On the 19th, four days later, he wrote as follows, viz:

"I am feeling much better; have gained five pounds in weight (which you will note is at the rate of 1¼ pounds per day). The ulcer in my throat is curing up. I have a good appetite, and can swallow any kind of food. In other words, I can say that I am a different man altogether."

A letter of subsequent date says: "From all appearances, my throat is entirely cured, and has been for at least a week—that is to say, since from two weeks after the injection. I have gained fifteen pounds in weight."

Thirty days after the injection I examined the man, and, so far as I could see, the appearances of the throat bore out the statement of the man that he was entirely cured. He had gained, in all, twenty pounds, weighing 142, his normal weight being 150.

There was some narrowing of the parts from the resulting scar tissue, as was to be expected from the extensive destruction of tissue, but there was a fair communication between pharynx and epipharynx, and I did not anticipate serious trouble from that condition.

So far, so good; but note here an interesting and complicating factor.

A few days after the "606" was administered I had a report from the pathologists who had examined microscopically the bits of tissue taken from the ulcer, saying that the tissue was "epitheliomatous in character." On asking for a more definite statement, the reply was that the specimen, in their best judgment, after a careful examination, was from an epithelioma.

This report suggests several interesting lines of inquiry:

1. Was the statement correct that the lesion was an epithelioma? Under ordinary circumstances, and before the use of the Wassermann test for differential diagnostic purposes, I feel quite sure that most of the members present would have accepted it without question. The examination was made by careful and competent men, whose work no one would feel disposed to question. In that event, we have perfected a brilliant cure of epithelioma by an agent among whose many useful properties this great one has not been claimed by its most enthusiastic admirers, so far as I am aware.

2. If, on the other hand, the pathologists were mistaken, and the lesion was not an epithelioma, then an instrument and a method of differential diagnosis—the microscope—has, in this case at least, been discredited.

3. Again, if the Wassermann had been rendered negative by the anti-syphilitic treatment previously received, then the report of the microscopist would have been accepted as final, and the predicament of both patient and physician can be better imagined than described.

But, assuming that the lesion was a tertiary syphilitic one, I would note especially these two things, viz: 1, The value of the Wassermann test; 2, the value of the salvarsan treatment.

Without the Wassermann, in this instance, I consider a correct diagnosis a matter merely of conjecture. There was nothing in the family or personal history to justify the assumption of previous infection; the diagnosis would have rested on the judgment of the diagnostician, which, in this instance, is far from infallible.

The results following this single injection of "606" may well be termed marvelous. In less than twenty-four hours the patient said that his throat felt much better; within four days he was able to eat anything he desired and had gained five pounds; at the end of two weeeks he had gained fifteen pounds and considered himself

entirely well. He received no local or other sort of treatment whatever.

I have been practicing medicine not a few years, but I have never seen a therapeutic result more prompt, striking and gratifying. This patient had already been saturated with mercury, I am assured, and probably potassium iodid also, because I think the man who had previously treated him is too good a therapeutist to rely on mercury alone for a tertiary lesion.

The speculation as to what would have become of this man before the era of Wassermann and salvarsan may well be passed for a more pleasing contemplation, viz: the beneficent results of the ministry of these two modern handmaids of scientific accuracy.

Mastitis From a Pediatric Standpoint.*

By ROBERT A. STRONG, M. D., New Orleans.

In selecting this subject I am prompted by a rather interesting case that came under my observation in private practice, and which presented some unusual phases which rendered the diagnosis at first obscure, but which was later brought out by careful examination.

As a whole, it is a very interesting pediatric history, and in reviewing the literature I found that very little had been written on mastitis in its relation to pediatrics which had any important bearing on this case, and this fact served as an additional stimulus for me to make careful observations and report my findings in order to bring forth the experience of others on similar, or possibly parallel, cases.

On March 1 I was called to see a male infant, two months old, the first child of young and healthy parents, with no history of previous miscarriages and an otherwise negative family history. The child had been delivered at full term by an experienced obstetrician after a labor lasting over forty-eight hours, and was a breech presentation. Aside from some evidence of asphyxia immediately after birth, from which it promptly recovered, the child was perfectly normal and weighed nine pounds. He had been breast-fed exclusively from birth, and was always perfectly healthy, weighing twelve pounds when seen.

The mother stated that the child had been very fretful for a day

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or two and would vomit after nearly every feeding. She added that he slept very little, on account of having colic most of the time, and when he did sleep it was very disturbed. The vomiting, as a rule, occurred immediately after feeding, but in several instances was deferred as long as a half or three-quarters of an hour after. The child was nursed in my presence, and I had an opportunity to observe the character of the vomiting, which could well be described as a simple regurgitation, and which occurred, in this instance, immediately after feeding. The mother, who was young, inexperienced and uninstructed, stated on questioning that she had been somewhat irregular in feeding the child, and had either walked, rocked or otherwise disturbed it after feeding it. That this mother's lack of knowledge on proper feeding was only in keeping with the general rule, and was not an exception, I believe we will all agree. She had been nursing the child at intervals ranging from an hour and a half to three hours all through the twenty-four, but the average length of time to the nursing was fifteen minutes. The quantity of milk secreted was very copious, and the child, being vigorous, seemed to be well satisfied in a shorter space of time than usual; hence it was reasonable to suppose that the nursing period was too long. The mother said that she invariably had to withdraw some of the milk from the breasts after each nursing for her own comfort, and she did this by massage. She also gave a history of the breasts caking a week or two after the birth of the child, and stated that the nurse had caused her great pain in milking the breasts.

Some of the milk which had been freshly drawn on the evening when I first saw the case appeared to be very rich, although the cream had not yet risen.

The child's bowels were regular, but a stool showed that the food was only partially digested, although there was no evidence of indigestion of special parts or any mucus. The abdomen was very much distended with gas, and the child seemed very uncomfortable. Menstruation, pregnancy, nervousness, acute illness, mastitis and indiscretion in diet were all eliminated at this stage as possible causes.

In consideration of the above facts gathered at the first visit, it seemed reasonable to assume that the cause of the trouble was simply overfeeding and irregularity, as to the intervals—conditions so frequently seen—and the additional possibility, in this case, of

an excess of fat in the milk. So the child was given a high enema of one quart of tepid water, to which two teaspoonfuls of tincture of asafetida had been added, and this was promptly expelled, bringing down a small amount of fecal matter of the character above described and a great amount of gas. This relieved it very much, and it went to sleep. A grain of calomel was ordered in fractional doses, to be followed by two teaspoonfuls of olive oil to clear the intestinal tract of any further undigested food, preparatory to better management. The mother was instructed to weigh the child the next morning before nursing, and to weigh it at five-minute intervals while nursing it, and to stop nursing as soon as it weighed three ounces more than the weight before. She was told to take the time that it took it to get this amount as the time she was to nurse it thereafter, and to nurse the baby at 7 a. m., 9:30 a. m., 12 m., 2:30 p. m., 5 p. m., 7:30 p. m., 10 p. m., and once during the night, at about 1 a. m., and to put the child in its crib immediately after nursing it and let it remain there for at least a half hour. Assuming that the milk was rather rich, until an examination of it could be made, I suggested that the baby be given a half ounce of boiled water from a nursing bottle before each nursing. The mother was requested to take regular outdoor exercise, and for a chronic constipation from which she had suffered for a year or two she was put on an ounce of liquid parafin* every night before retiring.

The next morning the mother weighed the child as directed, and found that it was getting three and one-quarter ounces in five minutes, so this supported the belief that the child was overloading its stomach. The mother was then instructed to nurse it for four and one-half minutes at each feeding and to carry out the instructions given on the previous evening. This was done, and the child improved very much for the four days following, and I thought that the problem had been solved, when the symptoms reappeared on the fifth day.

*Realizing that the use of liquid parafin as a cathartic is rather new, I believe that some explanation may not be out of place. It was first suggested to me by Mr. Lane, in his clinic at the great Ormond Street Hospital for Sick Children, London, who uses it extensively in cases following his "short circuiting" operation on the intestines. Its action in producing catharsis is purely mechanical and is entirely free from griping, and, being insoluble in the stomach or intestines, it is passed out unchanged. Its insolubility commended it to me as being excellent for nursing mothers; inasmuch as it cannot be absorbed, it will not affect the milk. It is official in the British Pharmacopeia, but not in the U. S. P. We have it available in this country as liquid albolene, or it may be procured from the Standard Oil Company or Armour, who manufacture it as a by-product. The absolutely pure article should be tasteless.

It was, therefore, quite evident that, while overfeeding and irregularity might be contributing causes, the real cause was still obscure, and a further search was instituted, with the following results:

PHYSICAL EXAMINATION OF CHILD.—His face was now commencing to show the effect of loss of sleep. He was well developed and nourished, and his color was very good. His temperature and pulse were normal, and his respiration was free and unobstructed, while his weight remained at twelve pounds. The legs were slightly flexed, but his position was otherwise negative. The cry was strong, but paroxysmal, and was of a character suggesting pain. The mucous membrane of the mouth was healthy, tongue moist and slightly coated, and the throat was normal. The skin was likewise normal. The shape and position of the head were not suggestive, the bosses not being prominent, and the general contour of the head being good. The posterior fontanel was closed and the anterior fontanel open, normal in size and level, while the sutures were approximated. The pupils were equal in size, reacting to light uniformly, and the corneæ were clear. There was no strabismus, nystagmus or ptosis, and the movements of the eyes were uniform. The ears and nose were negative. The anterior and posterior cervical glands, as well as the lymph nodes, were not palpable. The heart and lungs were normal, and the size and shape of the chest were normal and not suggestive. The spleen could not be felt, while the liver was palpable just below the costal border, and was found to be smooth. The abdomen was distended and tympanitic. No masses were felt, and there was no reason to suspect any localized tenderness. It was impossible to outline the stomach on account of the distention of the abdomen. The umbilicus was normal. Kernig's sign was negative, and the knee-jerks could not be obtained satisfactorily on account of the development of the child. The extremities firm and plump, and the movements were equal and normal. The fingers and toes were not suggestive, and the peripheral circulation was good. The epiphyses, joints and bones were normal, as well as the spine. The genitals were likewise normal. The stools showed that the food was still only partially digested, and this time there were traces of mucus.

The family history of the mother, as well as her personal history, with exception of the chronic constipation, were both negative. For the sake of brevity I will only take up the pathological findings, or those having some bearing on the child's condition, in reviewing the

examination of the mother, and let it be assumed that all others were negative.

Physical Examination of the Mother.—As previously stated, the mother was young and fairly well nourished, and, aside from the constipation, seemed to be perfectly healthy generally. The liquid parafin was now relieving the constipation very nicely. My attention, however, was drawn to the breasts by her complaining that she had some pain in the right breast which had developed on the previous day.

Examination of the breasts showed them to be well developed and composed chiefly of glandular tissue, with very little adipose tissue, and their shape may be described as "jug-shaped." The nipples protruded about three-quarters of an inch and there were no fissure or erosions, nor any cicatrices, to indicate that there had been. The nipples were tough, and the lineæ albicantes on the breasts suggested that the milk secretion had been copious for some time. There was no evidence of either localized or general inflammation, and very little tenderness. The axillary glands were not palpable. There was an excessively large amount of milk being secreted, and the glands were full.

After the examination a specimen of what is known as "middle milk" was taken from each breast, and the specific gravity was found to be 1028 in both specimens. They were then put into Holt cylinders to determine the fat content. These tubes were set aside to stand the usual twenty-four hours, but after standing three or four hours a yellowish deposit was noticed in the bottom of each tube, and seemed to be accumulating rapidly. At the end of twenty-four hours this deposit amounted to about one-fourth of the milk in the tubes, and a smear of it was stained with Wright's stain and found to be pus, with an unusual number of eosinophiles present. On finding this, a leukocyte and differential count was made, with the result that there was no leukocytosis, and the differential count revealed 4 per cent eosinophilia.

I then withdrew about one-third of the milk from the breasts and carefully scrubbed the nipples, following this scrubbing with carbolic solution, alcohol and sterile water, after which I saturated a sterile swab with the middle milk from each breast, and this was planted on blood serum and submitted to Dr. William H. Harris, of the department of pathology, for examination. Dr. Harris reported that he was unable to get a growth after incubating for this

culture for twenty-four hours, so he replanted it on agar, and after a second twenty-four hours succeeded in getting a small growth, which proved to be staphylococcus pyogenes aureus, and a gram negative diplococcus, which he stated was possibly micrococcus catarrhalis. The mother, up to this time, had no evidence of sepsis.

DIAGNOSIS.—The cause of the trouble now seemed quite plain, but I had been misled by early symptoms and a history which suggested a diagnosis that seemed to be equally as clear, and which proved to be only a contributing cause. In consideration of this, I was not inclined to follow the line of least resistance among the symptoms and select the most apparent diagnosis as the sole cause without first classifying the evidence and eliminating the other possible causes.

Acute and chronic gastric indigestion were considered and easily ruled out by the absence of fever, usual stupor and depression, anorexia, and by the time and character of the vomiting. The character of the stools and the absence of all usual manifestations of toxemia was sufficient evidence against any of the intestinal intoxications. Febrile diseases, peritonitis and appendicitis were all eliminated, by absence of retrospective symptoms. The age of the child rules out cyclic vomiting. Intussusception and intestinal obstruction were readily eliminated in the absence of usual symptoms of collapse and the free movement of the bowels, while congenital deformities of the esophagus, intestines, rectum and habit vomiting were likewise eliminated by no history of previous trouble.

As a cause for vomiting in infants, congenital and spastic pyloric stenosis is a condition too rarely recognized, and I believe it is of sufficient importance to warrant more than passing comment. While the recorded cases of this condition are comparatively few, I have reason to believe that an equal number have been overlooked. It follows, therefore, that this condition should be borne in mind more than has been done in the past, when we are dealing with a case of vomiting in infancy. Much can be done for these cases medically if it is discovered early, or at least we will be able to turn the patient over to the surgeon in a better condition than he usually gets them. A good rule to follow, as suggested by Lowenberg,[1] is that: "All cases of vomiting beginning at birth, or shortly thereafter, and continuing, in spite of a reasonable amount of food manipulation, especially in breast-fed infants or in artificially-fed ones as well, and associated with malnutrition, are to be regarded

as cases of pyloric stenosis, until it can be proved that they are not."

Pyloric stenosis is usually found in early infancy, and is characterized by persistent vomiting, repulsive in character, occurring sometimes immediately, but more often from half an hour to two hours after taking food or drink. The vomitus is, as a rule, sour and fermented, and the vomiting is accompanied by visible peristaltic waves in the epigastric region, with evidences of gastric dilatation and intestinal collapse. There is partial or complete constipation and a varying degree of emaciation, depending upon whether the pyloric obstruction is partial, complete or spastic, and upon the duration.

In this case it was readily ruled out by the absence of these conditions. The diagnosis now was unquestionably traumatic mastitis in the mother, by a slight infection through the lymphatics, with overfeeding and irregularity as contributing causes.

Treatment of the Child.—Pfaundler and Schlossman[2], and others, claim that weaning is not always necessary when mastitis exists in the mother, excepting when pus is present in the milk, as it was in this case. I believe this held good in the days when artificial feeding was in the experimental stage, or it was said with the belief that maternal nursing could not be reëstablished after temprary weaning, as is evidenced by a statement of the same authorities under a different heading, which reads as follows: "After nursing has been discontinued for a few days the secretion practically disappears." They further admit, however, that it "frequently happens that even after a longer pause it is possible to secure the return of the secretion." That the latter is more often the case has been proved by recent findings which show that maternal nursing may invariably be resumed, provided the breasts are regularly emptied, even though several months may have elapsed since the breasts have been used for that purpose. Marfan was successful after cessation of twenty-five days because of diphtheria, while Comby secured an adequate supply of breast milk after an attack of scarlet fever lasting forty-four days. Wile,[3] more recently, reports six cases wherein maternal nursing was again taken up after lapses ranging from a week to two months. My own experience in this case and others agrees with these findings.

Of course, if we do mean temporarily or permanently, it is very essential that we use a proper substitute for the breast milk. I firmly believe, with our present knowledge of the proper modifica-

tion of cow's milk, and if we are sure that the child will get fresh, clean milk, with standard percentages, which will be prepared by an intelligent mother or nurse strictly according to explicit directions, we should unhesitatingly wean the child in every case of mastitis. Whether this weaning will be temporary or permanent depends on the circumstances in individual cases.

If, after the mastitis has cleared up, we can secure a normal supply of breast milk, and we feel satisfied that no disturbance will be caused by a second change, we should promptly resume maternal nursing. However, if the child is doing perfectly well on the modified cow's milk, I think it a debatable question whether this second change should be made. I believe this may be decided by a suggestion offered by Holt[4] in the latest edition of his text-book, which reads:

> "Among the classes of society where most of the maternal nursing is very poor, but every facility can be afforded for the best artificial feeding, one should not be slow to adopt the latter in cases of doubt. Among the poor and ignorant, however, where the artificial feeding cannot be carried on with the same chances for success, all possible efforts should be made to increase maternal nursing as the most effective means of reducing infant mortality."

It is not my intention to discourage maternal nursing, which is already decreasing too rapidly among all classes; on the contrary, I think it should be encouraged as the most ideal form of infant feeding. However, we are forced to admit that in cow's milk, modified according to the latest accepted methods, we have a substitute which holds a closer second place than it did a year or two ago.

In this particular case the presence of pus *per se* demanded immediate weaning, and the child was put on a formula representing:

Fat	1%
Carbohydrates	7%
Protein	.90%

The prescription for the mixture containing these percentages, as written for the mother, was as follows:

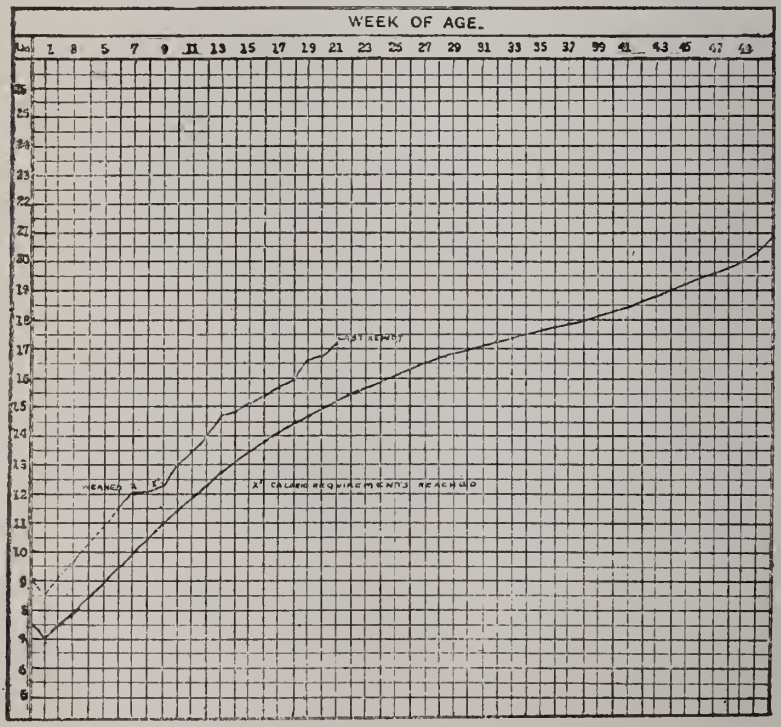
Take of whole milk, 6 ounces; milk sugar, 3 tablespoonfuls; lime water, 2 tablespoonfuls and 1 teaspoonful; boiled water, enough to make 24 ounces.

Divide into eight bottles of three ounces each, and feed at 7 a. m., 10 a. m., 1 p. m., 4 p. m., 7 p. m., 10 p. m., 1 a. m., and 7 a. m.

With this, complete instructions, to be posted over the preparation table, were given the mother, covering method of preparing the

mixture, refrigeration, feeding, sterilization of utensils, care of bottles and nipples, etc., which was supplemented by demonstration and verbal explanation. The extra bottle, which was purposely included, is for the 7 a. m. feeding on the following morning. This obviates the necessity of preparing the food at 5 or 6 o'clock in the morning, and I have never seen any bad results follow keeping this bottle over the twenty-four hours, provided it is properly iced. The caloric value of this mixture was 297, and the child weighed 5.4 kilograms. This food, therefore, supplied only 55 calories per kilogram, which was totally inadequate for the child's needs. In order to raise the calories to the required 100 however, it would have been necessary to start with percentages that are entirely too high to be in keeping with modern conservative feeding, and it is this mistake, so frequently made, and its consequent disturbances, that causes so many to abandon the use of modified cow's milk and adopt the prepared foods, with the belief that the cow's milk will agree with the child.

An examination of the weight chart will show that there was



nothing lost, but much gained, by starting with low percentages, inasmuch as there was no disturbance, which would have been evidenced by a decline in the weight curve lasting over a period of several weekes before returning to normal.

The infant's condition now rapidly improved, and he soon began to clearly show signs of hunger, which, in the absence of contrary indication, warranted an increase in food. This was done by alternately increasing the quantity of each feeding and the percentages until he was on a formula of:

Fat.	2%
Carbohydrates.	7%
Protein.	1.75%

The mixture now given him was: Whole milk, 20 ounces; milk sugar, 4 tablespoonfuls, 2 teaspoonfuls; lime water, 5 tablespoonfuls and 2 teaspoonspuls; boiled water enough to make 48 ounces.

Divide into eight bottles of six ounces each, and feed as previously directed.

The caloric value of this mixture is 790, but at the end of three weeks, when he was put on this mixture, his weight had increased to 6.5 kilograms. This gave him 120 calories per kilogram, which appears to be too much, but any food with a lower value than this caused marked evidence of hunger. This seems to show that there are instances where vigorous children require more than the usual 100 calories per kilogram in the early months.

He has been on this mixture now for five weeks, withour further change, and a summary of the weekly reports shows that he has been gaining from six to twelve ounces a week, with regular and normal stools, and is satisfied, comfortable and bright. There is no vomiting, regurgitation or flatulence, and he sleeps restfully three-quarters of the day. The total gain since weaning has been three pounds and two ounces. His chart is very interesting, and shows the advantage in starting with low percentages and gradually increasing as the digestive apparatus accommodates itself to the new food.

In the treatment of mastitis the best method is undoubtedly in the use of Bier's suction apparatus, which relieves pain, hyperemia, removes the milk, and soon softens the gland. In addition, the cosmetic effect is far better than incisions, which leave cicatrices. The best method of procedure is that which is advocated by Sigmund Strassny,[5] who applies the cup three or four times in a day for twenty to thirty minutes, and suggests that the air be let in every

five minutes and the suction renewed. Hartman[6] advocates the cups, and emphasizes that the bell should embrace the whole gland. Feinin[7] states that this method gives best results in Bardenheuer's clinic.

The course of the condition in this particular case was indeed very peculiar, and might have been easily overlooked but for the finding of pus in the milk. The case was unique inasmuch as, in spite of the large quantity of pus in the milk, which persisted for fifteen days, there was no accompanying septic fever, leucocytosis, palpable glands, evidence of localized or general inflammation, or abscess formation, which is the most frequent termination. In addition, the cause was rendered obscure by the absence of fissures, erosions or evidence of previous fissures, and the difficulty experienced by Dr. Harris in growing organisms.

The most plausible explanation of the absence of general septic symptoms in this case was that the pus was draining freely through the ducts. This belief was confirmed on the fifteenth day, when the mother had a slight chill and rise of temperature, which was promptly reduced by emptying the breasts. The treatment was, therefore, directed to assist nature in eliminating the pus through normal channels and in conserving the milk secretions for the resumption of maternal feeding, by regularly emptying the breasts by gentle massage. The adoption of massage over the breast-pump was with the belief that lobules remote from the nipples are better emptied. The absence of other symptoms, and the clear evidence that the drainage was good in this case, was sufficient to justify an expectant plan of treatment, but as the case progressed it was found that no further treatment was necessary.

After two weeks another culture of the milk was made, which revealed the total absence of organisms after an incubation of forty-eight hours. Aside from a rise of temperature on the fifteenth day, previously explained, recovery was uneventful. At the end of three weeks the milk was just as copious; while there was an albuminous deposit in the bottom of the tubes, the pus had disappeared.

The question which now presents itself was whether I should put the baby back on the breast or continue the modified cow's milk. The evidence on both sides was carefully considered. On the one hand, the secretion of the breast milk had been preserved, but was not quite normal, and, although I believe this milk could be brought to normal, there was some element of doubt at best. On the other

hand, the child was doing remarkably well on artificial food, with every reason to believe that he would continue, so I followed my own convictions and the advice of Holt as applicable to this case, namely: "Among the classes of society where most of the maternal nursing is very poor, but where every facility can be afforded for the best artificial feeding, one should not be slow to adopt the latter in cases of doubt." So the conclusion was to keep the child on the artificial food, and the breasts were dried up.

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Discussion of Dr. Strong's Paper.

Dr. E. H. Walet, New Orleans: Just one point with reference to sustaining the milk secretion. I reported a case before the Orleans Parish Medical Society a year and a half ago in which Cesarean section was performed. The woman remained at Hotel Dieu for a month, during which time her breasts were massaged and emptied, and at the end of about six weeks the child was put back to the breasts for the first time and continued to nurse without any complication whatever.

Dr. L. R. De Buys, New Orleans: Dr. Strong made a statement which I think is very true—that is, we have been too eager in the past, in cases of slight disturbance, to wean the baby. In such instances it is well, as he did in his case, to analyze the milk, remembering that milk to be examined should be the middle milk. Foremilk is rich in proteids; middle milk is approximately normal, and the strippings are rich in fats. If we take the whole milk from one milking, we have about normal milk. If we take the strippings, we do not have an accurate analysis.

A practical point in conditions of mastitis is that we can frequently tide the child over for a considerable length of time, and when the mastitis has subsided, put him back on the breast. I have on two or three different occasions emptied the breasts by putting puppies to them, and they did the work all right. If the puppies continued to do well, I would put the babies to the breast later, when all evidences of inflammation had passed.

Relative to the ability of the mother to nurse her child after disuse of the breast, in one instance a mother had not nursed her child for three months. Upon examination of the breast I found that there was some milk, and was able to put the baby back upon the breast, and keep him on it for some time thereafter. Whenever this is done it is well to weigh the baby before and after nursings, to know what he is getting; then if it is found that the baby is getting a sufficient quantity to meet his requirements, he may be allowed to continue.

Dr. Strong (closing): In regard to Cesarean section and other conditions requiring us to temporarily discontinue the breast feeding, it seems there is support for the belief that there is no question but that nursing can be resumed at any period thereafter, but it is absolutely necessary to keep up the supply of breast milk during this temporary cessation by emptying the breasts at least twice a day. We can conserve the milk supply for a very long period in this way. Remember that the lacteal secretion is at its best when the child nurses regularly. We all know that when a puny infant is too weak to draw the milk from the breast that the secretion will soon dry up unless we use some means to keep it up, namely, a stronger infant, massage, or young puppies, as suggested by Dr. De Buys. On the other hand, I just recall a report by Laurentious, in the *Archiv. für Kinderheilkunds,* in which he made a study of twenty-one wet nurses and found that, when one nurse nursed several children, which, by the way, is quite common in Germany, her milk supply was enormously increased. So it follows that we should imitate nature and keep up the supply, and, as stated in the paper, I believe massage has many advantages, but that massage must be gentle, on account of the possible trauma and mastitis resulting therefrom.

I believe that our conclusions are as follows:

1. That we should make it a routine practice to examine the breast milk of a nursing mother from time to time, or at least in all cases showing a disturbance.

2. That we should always start a child on very low percentages and gradually increase them up to the caloric requirements.

3. That we should always bear in mind the possibility of returning to breast feeding, and should take steps to conserve the breast milk with this object in view.

A Further Word on the Ipecac Treatment of Amebic Dysentery.

By SIDNEY K. SIMON, M. D., New Orleans.

During the past few years a large literature has sprung up concerning the subject of intestinal amebiasis, and more especially that phase of the subject which has to do with its treatment. The undoubted reawakening of interest in this field has been accentuated largely by the discovery that ameba is not confined in its distribution exclusively to the tropical, or even semi-tropical, regions, as was formerly thought, but, on the contrary, is a widely-scattered parasite appearing numerously in all parts of the world, irrespective of latitude or longitude. In previous contributions to this subject I have endeavored to emphasize these facts, more particularly as my observations ran in connection with our own section of the South.

It is not my purpose on the present occasion, however, to again dwell upon this feature, important though it be. The scope of this paper rather shall include merely a brief resumé of my clinical experiences with the disease during the past three years, more especially as regards the routine administration of ipecac in the form of salol-coated pills. This drug I have now used consistently in somewhat over fifty cases, the records of which I have, with results that leave no doubt in my mind of its high and wellnigh indispensable value.

In order, however, that only a fair and impartial judgment be formed of the permanency of cure in cases of amebic infection, it is necessary that some control be had over the subsequent histories of the patients. Particularly is this true in amebic dysentery, since, as Musgrove points out, apparent cures in the clinical sense may occur either spontaneously or for a period following almost any plan of treatment.

With a view, then, towards establishing the permanent nature of the cure in cases treated exclusively with ipecac, I have endeavored to get into communication with as many of my former patients as possible. Only those, however, who had been subjected to the full course of treatment were included in the list. Likewise, all patients treated within the past six months were not considered applicable.

In all, thirty-five letters were sent, requesting a report from each individual, of the subsequent status of health following the dis-

charge as cured. The several specific questions asked were as follows:

1. At the present time how many times do the bowels move each day?

2. Since discontinuing treatment, have you had any attack of diarrhea, and, if so, how often and how long did each attack last?

3. Are the stools soft or well formed?

4. Do you pass any blood or mucus?

5. Do you have any pain or straining?

6. Have you gained or lost in weight, and how much?

7. What is your general condition as compared to the period of your illness?

Unfortunately, in spite of repeated urging, and, in several instances, personal search, I can acknowledge only fifteen replies. The negligent ones include mostly the free-clinic patients, among whom were many ignorant and shiftless Italians and negroes.

The reports of those who replied, with a brief record of the history of the disease preceding treatment, follow:

Case No. 1. J. M., age 38, white male, laborer, reported for treatment November 20, 1910.

History: Past two months, loose bowels every day; movements, ten to twelve in twenty-four hours. Stools contain mucus and blood. Cramp pains around umbilicus. Tenesmus. Discharged from hospital.

Report.—April 15, 1912: Since discharge, no diarrhea. Bowels move once per day. Well formed, and no mucus or blood. Splendid health. Five pounds gain in weight.

Case No. 2. J. G., age 47, white, fireman. Began treatment May 25, 1909.

History: Attacks of dysentery, off and on, past two and a half years, alternately with periods of constipation. When bowels are loose, notices much blood and mucus. Slight tenesmus.

Treated at Charity Hospital. Since discharge, reports as follows: In perfect health. Has had no bowel disturbance since.

Case No. 3. Mrs. F. B. O., white, age 41, dressmaker. Treated during December, 1910.

History: Previous eleven months, violent spells of cramps in lower abdomen and back. Passages soft, containing blood and mucus. Movements, fifteen to twenty per day, with temporary improvements.

Since her treatment she reports normal, well-formed movements, without exception. Her general condition at present is good, with a gain of ten pounds in the past year.

Case No. 4. Mrs. E. W., white, age 36, housewife. Came under treatment July 1, 1911.

History: Dysentery past two and a half years. Had lost fifteen pounds in weight. Very anemic. Complained much with abdominal pain and tenesmus. Stools frequent and watery, containing blood and mucus. Had tried various treatments.

She reports, April 18, 1912, complete recovery. Has gained twelve pounds in weight. Hemoglobin, 95 per cent. Bowel movements normal.

Case No. 5. R. S., age 38, white, coppersmith. Placed under treatment June, 1911.

History: Sick, off and on, past three years, with dysentery. Heavy feeling constant in lower abdomen. Bowels move four to six times per day. Mucus and blood in stools. Tenesmus. Ten pounds loss in weight.

Reports April 14, 1912: Tendency to constipation. Stools hard; no more blood or mucus. Feeling fine. Gain in weight, eight pounds.

CASE No. 6. J. K., age 58, white, preacher. This was one of the first cases treated with ipecac in August, 1908.

History: During preceding eight years, with periods of temporary improvement, dysenteric stools and tenesmus. Fifteen pounds loss in weight. Previous history, syphilis.

Reported, last week, complete and permanent recovery since discharge from hospital. No recurrence of dysentery. Bowels move without purgative once daily.

CASE No. 7. E. St. P., age 21, white, clerk. Treatment started September 12, 1911.

History: Abdominal cramps and dysentery past five months, movements at times as high as twelve per day. Mucus, but no blood.

Claims to have been perfectly cured (April, 1912). Stools well formed, without mucus. Gain in weight, fifteen pounds.

CASE No. 8. Mrs. D. W., age 52, white. Treated with ipecac May, 1910.

History: Frequent, loose stools, with blood and mucus, past seven months. Tenesmus slight.

Reports present condition good. Bowels move once per day. No attacks of dysentery since discharge.

CASE No. 9. C. R., age 27, white, motorman. Admitted to Touro, October, 1911.

History: Past three weeks, bloody discharges from bowels, with much tenesmus and fever. Similar attack, lasting two weeks, three years previous. Intervals, tendency to constipation. Ameba were found in this case in enormous numbers.

Reports, last week, complete recovery since discharge from hospital. Stools free from ameba, after purgative. Gained fifteen pounds in weight. Bowels regular.

CASE No. 10. L. S., age 38, laborer. Treated at home with ipecac, October, 1911.

History: Two years ago, first attack dysentery, lasting only three days. Complete recovery up to two weeks ago, when he experienced a return of symptoms. Very frequent passages, containing blood and mucus.

Result: Complete recovery. No return of dystentery. Gain in weight, ten pounds.

CASE No. 11. S. S., age 33, white, merchant. Treated in Touro Infirmary, October, 1910.

History: During the past five years subject to attacks of diarrhea, with blood and mucus in the stools, especially in autumn. Present attack dates back seven weeks. Very severe with cramps and tenesmus. Bright red blood and large quantity of mucus in stools. Fourteen pounds loss of weight during past year.

Reports, April 19, 1912, complete recovery. No recurrence of dysentery. Bowels move once daily; well formed. Gain in weight, twenty-five pounds.

CASE No. 12. G. H., age 36, railroad conductor. Treatment, July, 1910.

History: Past six years, diarrhea, alternating with constipation. Soft stools, with blood and mucus constant, past four months. Cramp pains across abdomen, and tenesmus. Lost twenty-one pounds in weight the preceding six months.

This patient reported, two months ago, that since his discharge from the hospital in August, 1910, there had been no recurrence of the intestinal disturbance in any form. He had gained considerably in weight, and his general health was splendid.

CASE No. 13. J. A. R., age 29, clerk. Treatment began April 4, 1910.

History: Past eighteen months, bowel disturbance, consisting of soft stools, often containing blood and mucus. Stool movements as high as twenty-four in a day. Frequently severe cramp pains in abdomen, and tenesmus.

Report, April 22, 1912: Bowels have moved regularly without attacks of dysentery since treatment. Stools well formed. No blood or mucus. Gain in weight, twenty pounds.

Case No. 14. Mrs. G. S., age 26, white, widow, telephone operator. Treated May, 1909.

History: Seven months previous, sudden attacks of acute dysentery, with fever; tenesmus. Blood and mucus in stools. Never recovered completely from this attack. Bowels move four or five times per day, containing more or less, each time, blood and mucus. Cramp pains around umbilicus, and tenesmus.

Report, April 20, 1912: Since treatment bowels have moved regularly each day. Forty pounds gain in weight. General health fine.

Case No. 15. P. G., colored, age 26, porter. Treatment with ipecac, October, 1908.

History: Past four or five months, pains in lower abdomen, with diarrheal stools. About six movements per day, always containing blood and mucus. Tenesmus.

Less than three months ago I met this patient, who reported a clean bill of health since the date of his treatment. He had gained about ten pounds in weight.

A critical analysis of these records will show in each a uniform and highly favorable result. In no case has there been even a suggestion of a recurrence of the dysenteric attacks since a discontinuance of the ipecac. The interval thus elapsing has varied from almost four years in Case 6 to six months in Case 11. All report otherwise splendid health records following their recovery, with a notable gaining of weight from five pounds in Case 1 to forty pounds in Case 14.

In eight of these apparently cured patients I have examined the stools for amebæ, with negative results. The proctoscopic examinations have likewise shown freedom from ulcerations in the lower bowel.

Before concluding this clinical review of cases it may be well to repeat once more the various detailed steps that have been found essential in insuring success with the administration of the ipecac in amebic dysentery. It is largely the careless disregard of such detail which will probably explain the failures reported from time to time from various sources. The full plan of treatment includes the following essentials:

1. Absolute rest in bed over a period of at least two weeks.
2. A proper regulation and restriction of diet.

The underlying principle of the diet during the administration of the ipecac is to limit the amount of refuse in the intestinal canal

to the minimum, so as to allow the drug freest access to the parasites. With this idea in view, only liquids should be allowed during the first week, preferably even to the exclusion of milk during the initial two or three days. Beginning with the second week the softer, easily digestible solids may be gradually added. There should be a restriction of the coarses foods, however, throughout and for several weeks following the treatment.

3. The employment of a properly-coated salol pill.

I have found five-grain pills, freshly prepared by the pharmacist, the best. The width of the salol coating should not exceed one-eighth inch, and preferably nearer one-sixteenth inch, but care should be taken that sufficient salol is used to prevent vomiting. The quantity of salol to each pill, I have found, varies between one and one-half to two grains. The relatively large dosage of salol, as high as thirty grains, with the maximum number of pills, has never been found in the least harmful.

The ipecac should be of the best Rio variety, which is known to contain the highest percentage of emetin. Vedder has shown experimentally that the emetin alone of the alkaloids in the ipecac seeks out the destruction of the ameba. This is accomplished both by direct contact in the intestinal canal and indirectly through absorption, and subsequent excretion by the intestinal glands.

A three-hour fast should always precede the administration of the pills. The initial average dose of the ipecac is sixty grains, though in special instances as high as 100 grains may be given. Each succeeding evening the dosage is reduced by five grains, or one pill.

4. The employment of bowel irrigation or flushes should not be attempted during the administration of the ipecac. Otherwise, the aim of the drug is defeated by washing it out of the large bowel.

I wish to acknowledge my indetbedness to my co-worker, Dr. A. L. Levin, for valuable assistance in compiling the histories of the cases.

Discussion of Dr. Simon's Paper.

Dr. Randolph Lyons, New Orleans: While it is well to treat a patient who has amebic dysentery with ipecac and discharge him as cured, we do not know how long he is going to remain cured. I treated twenty different cases with ipecac, and of this number I have heard from three. They have, thus far, remained perfectly

well. The first case, I remember distinctly, was seen by a number of physicians in the Charity Hospital, and among them Dr. George Dock. The patient was admitted in a very much emaciated condition, with a septic temperature. The liver was very much enlarged. A liver abscess was suspected. The stools were full of amebæ, pus and blood. It was decided to give him the benefit of the ipecac treatment first, and not to operate, as we did not get any pus from the liver. We put him on rather heroic doses of ipecac, given in the manner that has been mentioned, with salol-coated pills; gave him one hundred grains at a dose for three days straight, then the dose was gradually reduced. He was relieved of all bad symptoms, and the dysentery subsided gradually, and inside of from four to six weeks he left the hospital apparently cured. I got a letter from the man several months ago in which he says he has not had any trouble with his bowels since. He has increased thirty pounds in weight.

The second case I mentioned was an acute case treated a year and a half ago, and is now perfectly well. The third case was a chronic one, and the last time I heard from him, which was three or four months ago, he was perfectly well. Of course, where the disease recurs, in many instances, it is not a relapse, but a fresh infection from without, as many patients go to the same locality and conditions in which they originally became infected.

Dr. Simon mentioned the salol content of the pill. I looked that question up three years ago, and had an examination made of the pills from the Touro Infirmary and Charity Hospital and several drug stores. The salol content of the pills varied between one and a half and four grains of salol, so that in some cases we are giving a large dose of salol. The pills from the Charity Hospital averaged three and a half grains of salol, so that a patient who received one hundred grains, or twenty five-grain pills, got approximately sixty grains of salol. I have never seen any harm result; on the contrary, I find the salycilic acid content of salol is strongly amebacidal as well as bactericidal, and the irritation of the kidney we read about in the books I have not seen. I remember one case of strongyloides treated with salol in enormous doses. I examined the urine daily, but could not see any bad effect from the action of the drug. The salol content of the ipecac pill is a valuable thing.

Dr. D. O. Willis, Leesville: I have had an unpleasant experience with the use of ipecac. I have had two cases of extreme

purgation from the use of ipecac. One of them really became alarming. The patient, a woman, never vomited, but she was very sick, very much shocked, and was purged violently with the ipecac. I have given from sixty to one hundred grains to five or six patients, but it purged them so much that it worried me a little. In each one of the cases it was freshly prepared by a fine chemist, and coated with salol, and, so far as we were able to determine, the quality of the ipecac was good. There was no nausea until they were extremely weak, and at times the bowels were acting rapidly. I would like to know if any member has had the same experience. I used ipecac for several years before it was discussed before this Society. Dr. B. G. Henning, of Memphis, recommended it to me more than ten years ago. I have been using as much as sixty grains since then, and I have obtained most excellent results with that exception.

Dr. Simon (closing): In answer to Dr. Willis, I have noticed the same effect. The ipecac undoubtedly has a purgative principle, but exactly what that purgative principle is has not been clearly brought out. The fact is, we have still a great deal to learn about the pharmacology of ipecac. I have thought, in those cases in which I have seen a tendency towards extreme diarrhea after its administration, the fault might lie in the ipecac, and I have insisted in the Touro clinics that all ipecac is not alike, and in the past year I have not noted the severe attacks of diarrhea. During the administration of the ipecac we want to have free purgation of the bowels, but if the bowels move four or five times a day there can certainly be no harm from it. In those cases in which the bowels move more freely, I combine a slight amount of opium the following day to check up the bowel movements. There have not been any evil results, so far as I can see, in any way.

Society Proceedings.

The Fifteenth International Congress on Hygiene and Demography

The Fifteenth International Congress on Hygiene and Demography was held at Washington, D. C., from September 23 to September 28, 1912, and was in every respect a remarkable meeting.

In general, the arrangements were well planned and executed, although in some details the management could be criticised—*e. g.*, no stenographers were assigned to the various sections to report discussions.

A large number of distinguished authorities in medicine and hygiene were present, the largest number of foreign guests being from Germany. It was notable that almost no foreign exhibits were placed—a fact that is significant, because Americans attending previous congresses abroad have wondered that no American exhibits were to be seen at congresses held in Europe.

The Congress was divided into nine sections, these being devoted to Hygienic Microbiology and Parasitology, Dietetic Hygiene and Hygienic Physiology, Hygiene of Infancy and Childhood and School Hygiene, Hygiene of Occupations, Control of Infectious Diseases, State and Municipal Hygiene, Hygiene of Traffic and Transportation, Military, Naval and Tropical Hygiene, and finally the section on Demography.

In addition to the section meetings, joint meetings of two or more sections were held on several occasions, and also general addresses or demonstrations before the Congress.

The writer attended principally the meetings of Section I, on Hygienic Microbiology and Parasitology, under the chairmanship of Professor Theobald Smith, and those of Section VIII, on Tropical Hygiene, presided over by Dr. Henry G. Beyer, of the United States Navy.

Space will not permit of any detailed notes regarding the many interesting papers read before the various sections of the Congress. It seemed to be the consensus of opinion that the most important communication made to the Congress was the announcement of the successful cultivation of the malarial parasites by Bass. Not only did the discussion following this paper bring this out clearly, but the exhibit of the Department of Tropical Medicine of Tulane University, Medical Department, which contained micro-

scopical specimens illustrating this investigation, was daily visited by numbers of the most distinguished members of the Congress, and the writer was constantly informed of the impression which this brilliant piece of research had made upon the Congress.

Another announcement which created much interest was that of Rosenau, who reported his success in transmitting poliomyelitis to monkeys by means of the stable fly *(Stomoxys calcitrans)*.

In the Section on Hygienic Microbiology the paper by Craig on parasitic amebæ brought a most interesting discussion; and in the Section on Hygienic Physiology the work of Mendel on the relation of proteins to growth was the subject of much comment.

Among the most valuable features of the Section on Tropical Medicine was a symposium on the prevention of malaria by Celli, Ruge, E. Sergent, Le Prince and others. In this presentation the value of quinin prophylaxis was attacked, but found many defenders. Before this section were presented the researches of Seidelin, who considers that his preparations show that this disease is caused by a new protozoan parasite, *Piroplasma flavigenum*. It cannot be said that his work was considered conclusive by the section, several of the most competent authorities regarding the so-called parasites to be merely artifarcts. Another significant feature of this section was a symposium on trypanosomiasis, by Laveran, Thiroux, Todd and Darling.

One of the most novel and delightful features of the entire Congress was the exhibition by Fülleborn of moving pictures illustrating the method of infection with *Strongyloides* and hookworms, the life history of mosquitos, and the miracidia of *Schistosomum hæmatobium*.

In this report no attempt is made to do more than present the writer's personal impressions of the Congress, since a full report will be available for all who are interested in its proceedings.

The social features of the Congress were charming, and included receptions by the President of the United States, by the Mayor and officials of the City of Washington, and by the House of Delegates of the Congress.

In general, the writer would say that the Fifteenth International Congress of Hygiene was an adequate and satisfying expression of the progress of what might be termed the most important of all the applied sciences.

Creighton Wellman, M. D.,
Delegate to the Congress from Tulane University.

The Second Triennial Meeting of the National Association for the Study of Pellagra.

Reported by C. C. Bass, M.D., New Orleans, La.

The association was formed three years ago at Columbia, South Carolina, by over one hundred physicians and scientists especially interested in the supposedly new disease, pellagra.

The second meeting of the association was held under the presidency of Dr. J. W. Babcock, at Columbia, South Carolina, October 3 and 4, 1912. The meeting was well attended by a great many of the students of the disease in this country. The program consisted of sixty-six papers and communications, several of which were by authorities in England, Egypt, Italy, Porto Rico, Canal Zone, France and Roumania.

The papers were grouped as follows:

"Etiology, Epidemiology and Statistics," 3; "Local History and Diagnosis of Pellagra," 13; "Special Symposium on Pellagra," 9; "Laboratory Investigations of Pellagra," 8; "Clinical Features of Pellagra," 13; "Treatment of Pellagra," 11; "Miscellaneous Aspects of Pellagra," 4.

An especially valuable communication was "a preliminary report on the epidemiology of pellagra," by the Thompson-McFadden Pellagra Commission. These gentlemen have been making a most thorough study of the disease "in the field" in Spartanburg County, South Carolina, with reference to every phase of the subject. They have studied a large number of cases, carefully considering the various theories of etiology in relation to each case, and especially investigating the relation of cases to other cases, to the topography of the country, etc. They found more pellagra along the borders of, or near running streams, favoring the simulium theory of Sambon, but more people live here than in more poorly watered sections. They found more than one case in several different families and also cases in families living near each other, both of which facts argue for contagion, or communication, or infection, possibly by insects. On the other hand, it must be recalled that the members of a household are all more or less exposed to the same influences that food might have in producing the disease. No definite conclusions have been reached by this commission.

The Bureau of Entomology, Department of Agriculture, has had an entomological survey of Spartanburg County made by

Jennings and King in association with the Thompson-McFadden Commission. These gentlemen contributed a paper in which they indicted the *Stomoxys-calcitrans,* or common stable fly, as a possible factor in the transmission of the disease. This fly looks very much like the common house-fly, but differs, in that it is able to bite and draw blood. It frequents stables especially, but may also be found in dwelling houses. They found these flies in or near the houses of pellagra patients and think the habit of this fly of biting in the day time and its distribution, warrant its consideration as a possible factor in transmitting pellagra.

Most of the statistics presented at the meeting show that the disease is much more prevalent in females than in males. This is considered by many to indicate that the insect carrier bites especially in the day time, and, therefore, bites the women who remain about the house more than the men.

For this reason and others, Roberts, in a very able paper, indicted the mosquito, probably the Stegomyia.

A communication from Sambon was read in which he expressed his continued belief in his simulium, or sand fly, theory and announced the finding of a protozoon in the brain and meninges of an Italian who had died of pellagra. He did not claim this to be the cause of pellagra, but considered it noteworthy. The organism resembled somewhat the Leishman-Donovan bodies of Kala-Azar and were quite numerous.

The simulium theory of Sambon got a considerable setback from Beall, of Texas. The simulium oviposits and the young develop in swift running streams and the flies do not travel any considerable distance from such streams. He found several cases of pellagra in Texas, five, ten and twenty miles from any running water, and two cases fifty miles from such streams.

It should be recalled in this connection that Italian investigators, years ago, injected blood of pellagra patients in different stages of the disease into supposedly susceptible individuals, and in every instance failed to reproduce the disease. There have been a good many blood transfusions of pellagra patients in this country and the donors have remained free from the disease, though, no doubt, in many instances some small amount of blood of the patient got into the wound, or possibly into the circulation of the donors. We have no instance in medicine, so far as I am aware, of a disease transmitted by a blood-sucking insect, which cannot also be produced by direct injection of blood.

These very facts offset any theory of transmission by blood-sucking insects that has yet been advanced, or will be advanced in the future.

Other theories advanced were that the disease is caused by carbohydrate diet and by ingestion of vegetable oils.

The main evidence against the old spoiled corn toxin theory was the proposal of the other theoretical causes above mentioned.

Professor Volpino, of Italy, announced that he with others had obtained a specific constitutional and local reaction in pellagra patients by injecting hypodermically an aqueous extract of spoiled corn. No such reaction occurs in non-pellagra patients.

Considerable work has been done in the Bureau of Plant Industry, by Alsberg, with spoiled corn, and he reported the finding of substances very toxic for animals in corn spoiled by moulds of the genus Penicillium.

The fact that large amounts of spoiled corn are placed on the market was emphasized by Hon. E. J. Watson, Commissioner of Agriculture of South Carolina, who exhibited a number of specimens of spoiled corn and meal that had been sold, or offered for sale, on the South Carolina market. South Carolina has now laws intended to prevent the sale of spoiled corn. Of especial interest was the fact shown by Mr. Watson that corn meal may be quite inferior and contain much toxin without being detected by ordinary observation.

Dr. C. H. Lavinder, of the United States Public Health Service, had investigated the "prevalence and the geographic distribution of pellagra in the United States," and his figures indicates the appearance of the disease in a constantly increasing area of the country; not only that there seems to be a constant increase in the number of cases everywhere except for a few sections in which there has been no increase for the last year or two and probably a decrease in certain of them. It is the writer's opinion that the incidence and mortality of the disease have decreased in our own section around New Orleans during the last one or two years.

It is noteworthy that 31 cases of pellagra in Rhode Island were reported by A. H. Harrington. Most of these cases died. It is the rule for the first cases recognized in a section or a country to be very fatal, due probably to the fact that only the severest cases are first recognized.

Several papers were read on "the treatment of pellagra," in

which the authors reported excellent results for his special treatment, some of which were considered specific. Each author's treatment was very different from the others. This suggests the possibility that the results obtained were not the result of the specific treatment employed. Of much importance in this connection was the experience of the Thompson-McFadden Commission, which sent fifteen patients to New York during the summer for further study. Severe cases were selected especially with the hope of studying the disease and obtaining autopsy material. Fourteen of the cases have already apparently recovered and the fifteenth is improving. No specific treatment was given. This emphasizes the importance of change of climate and possibly other coincident influences in pellagra and I believe I can refer with just pride to my article in the *Journal A. M. A.* Vol. LV, p. 940, 1910, in which I directed attention to the theoretical basis for and beneficial results of climatic treatment of pellagra. This was the first time this was ever recommended in the literature on pellagra. It probably remains to-day the most valuable single measure known for the immediate relief of the disease.

The following resolutions* were unanimously adopted at a full meeting of the third day:

"Whereas, The third meeting of the National Association for the Study of Pellagra is about to close its most succeessful meeting at Columbia, South Carolina, it seems fitting, before final adjournment, that certain things should be made a matter of formal record; therefore, be it *Resolved:*

1. That the Association desires to express its appreciation of the courtesies extended by the City of Columbia, by the authorities of the State Insane Asylum, and especially by the president, Dr. J. W. Babcock, to whose personal energy the success of this meeting has been largely due.

2. That this Association reiterates the belief, formerly expressed, that the ultimate cause of pellagra is unknown, but it is of the opinion that, in view of the indictment against "spoiled" corn, measures should be taken by proper authorities to prevent its sale and consumption as food.

3. That this Association expresses the conviction that no satisfactory evidence has ever been submitted which shows pellagra to be transmissible from man to man, and that, in the present state of our knowledge, this Association regards measures of quarantine and isolation for this disease unnecessary and unwise.

4. That this Association is convinced that there is at present no known specific remedy for pellagra, and any claim made for the specificity of any especial therapeutic agent must be accepted with great caution.

5. That this Association recognizes pellagra in the United States as a matter of great importance to the national public health, and notes with approval the interest of the United States Public Health Service in the

* During the last hour of the last session, and when only a few were present, the resolutions were brought up again. Objection was raised to sections 3 and 4, but the objections were finally withdrawn and the resolutions allowed to stand as originally passed.

subject. It is hoped that the Congress of the United States may appropriate sufficient funds for the continuance and extension of this work.

6. That, whereas, the Thompson-McFadden Pellagra Commission has been established through the gift of $15,000 by Colonel Robt. M. Thompson, of New York City, and Mr. J. H. McFadden, of Philadelphia, and that, whereas, the members of this Commission have undertaken an active interest in the proceedings of this Association and presented valuable studies upon this disease, therefore, be it

Further Resolved, That, in the opinion of this Association, the broad spirit of philanthropy displayed by such gifts for the study of this disease, which so severely affects certain sections of our country, is worthy of the highest commendation. Pellagra is a disease of great perplexity, and it is only through such efforts that there is any hope of solving its etiology and establishing effective prophylactic measures. It is hoped that the example of these gentlemen may be emulated by others."

THE SOUTHERN MEDICAL ASSOCIATION.

The Sixth Annual Meeting will be held at Jacksonville, Florida, on November 12, 13, 14, 1912; under the Presidency of Dr. J. M. Jackson, of Miami. The Chairman of Sections are as follows:

Medicine, Dr. C. C. Bass, New Orleans; Surgery, Dr. J. T. Inge, Mobile; Ophthalmology, Dr. M. Fenagole, New Orleans; Hygiene and Preventive Medicines, Dr. Oscar Dowling, New Orleans.

SYNOPSIS OF PROGRAM.

Entertainments—Tuesday, 5:30 p. m., Alumni reunions; 9:30 p. m., entertainment at Board of Trade Building. Wednesday afternoon, automobile ride and reception for ladies at the Florida Country Club; 9:30 p. m., a banquet.

General Meetings, Morocco Temple, Beginning Tuesday at 10 A. M.—Address of welcome, etc.; oration in medicine, Dr. Llewellys F. Barker, Baltimore; oration in surgery, Dr. Stuart McGuire, Richmond; address, Dr. Robert C. Wilson, Jr., Charleston; address, Dr. H. H. Martin, Savannah.

On the second and third days the program includes symposiums on Malaria, Amebiasis, Syphilis, Plague, etc.

An elaborate program is projected, and the Journal regrets that the provisional outline was received too late for lengthy notice.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The Cultivation of the Malarial Parasites.

There are five epoch-making discoveries which have contributed to our present knowledge of the malarial diseases. The first of these was the discovery of quinin in the early part of the seventeenth century; the second was the discovery of the malarial plasmodium by Laveran in 1880. The third discovery was that of Golgi, Marchiafava and Bignami, and others of the Italian school, who worked out the schizogony or sporulation of the parasites in man. The fourth great feat was the elucidation of the mosquito carriage of the disease and the following out of the parasites' sporogony or coccidia-like cycle of development in the mosquito by Manson, Ross and Grassi. The fifth, and most recent. advance is the discovery of a method of cultivating the malarial plasmodia *in vitro,* an achievement which has just been accomplished by Dr. Charles Cassedy Bass, Assistant Professor of Tropical Medicine and Director of the Laboratory of Clinical Medicine in the Medical Department of Tulane University.

The initial successful cultures were made by Dr. Bass[1] nearly a year ago, but lack of clinical material and other circumstances prevented the completion of the work until April, 1912, when the Medical Department of Tulane University decided to equip a research party and send it to Central America to continue the investigation.

This expedition was made possible through the kindness of an unknown friend of the Medical Department of Tulane University, who contributed a fund to finance the project.

The United Fruit Company, who have already contributed $25,000 towards the expenses of the Department of Tropical Medicine, provided free transportation for the expedition and its apparatus. Colonel W. C. Gorgas, Chief Sanitary Officer of the Panama Canal Zone, with various members of his staff, placed all

1. *Journal A. M. A.,* Nov. 4, 1911, Vol. 57, pp. 1534-1535.

the material in his hospitals at the disposal of the expedition, and extended every possible courtesy to the two members of the expedition, Prof. Charles Cassedy Bass, and an assistant, Dr. Foster Mathew Johns.

The object of the investigation was the cultivation of the malarial parasites *in vitro,* which, as above stated, had already been accomplished by Prof. Bass, but many details of which remained to be elucidated and confirmed. In this the party obtained complete success. It was found that the malarial plasmodia can be grown in human serum, in Locke's fluid (from which calcium chlorid is omitted), and in human ascitic fluid. In the majority of the cases dextrose must be added to the medium, to secure satisfactory growth. The most favorable temperature for the cultivation of plasmodia is about 40° C.

A preliminary note on the results of the investigation appeared in a recent number of the *Journal of the American Medical Association,*[2] and the full report of the expedition may be found in the October number of the *Journal of Experimental Medicine.*[3]

In their report, Bass and Johns point out several practical applications of their work. One of these is the fact that the dextrose content of the blood has a definite relation to the growth of the parasites. Dextrose being the form in which carbohydrates gain the circulation, we have here an explanation of the well-known clinical observation that the parasites will often disappear from the blood and the paroxysms cease if the patient is put to bed and is given a purgative and light diet.

Another point brought out is that calcium salts, when added to estivo-autumnal cultures *in vitro,* cause hemolysis of the infected red blood cells, and possibly also of some of the non-infected cells. The salts do not have the same effect on normal blood. The authors suggest that here we have an explanation of the relation of malaria to black-water fever, the latter disease, according to them, being induced in a malarious person by drinking water containing lime salts.

A third suggestion is that quinin has no destructive effect upon malarial plasmodia, its influence being possibly to render the red blood cells permeable to serum, which they find will almost immediately destroy parasites brought in contact with it.

2. *Journal A. M. A.,* Sept. 21, 1912, Vol. 59, p. 936.
3. *Journal Exper. Med.,* October, 1912, Vol. 16, pp. 567-579.

An explanation is also offered regarding the manner in which parasites pass from corpuscle to corpuscle, which the authors believe is only when the red cells are actually in contact at the time of segmentation. Not only the serum, but also leucocytes, destroy the plasmodia, and these latter must be removed by centrifugalization when cultivating the parasites.

Finally, it is pointed out that the size of the capillaries and the amount of blood pressure have an important influence upon the stage at which the plasmodia recede from the peripheral circulation, and it is possible that these factors play an important part in the production of cerebral blocking in malaria.

The specimens illustrating this piece of research were exhibited by the Department of Tropical Medicine of the Tulane Medical Department at the recent International Congress of Hygiene and Demography, and attracted the attention and universally favorable comment of the most distinguished members of the Congress.

Professor Bass presented to the Congress a paper setting forth the details of the work to date, and a number of distinguished members, including Löffler, Gärtner, Fullerborn, Nuttall, Welch, Theobald Smith, Novy, and many others, expressed themselves as entirely convinced of the accuracy and great value of the investigation, and felicitated the young scientist, the institution which produced him, and the department of which he is a member.

It is a source of congratulation to the Department of Tropical Medicine, to the Tulane Medical Department, to the entire University, and also to New Orleans and the South, that what has been termed the most brilliant piece of medical research of the year should have been done in the South and under the auspices of the great university of the South. If the new Department of Tropical Medicine in Tulane had done nothing during its first year of existence except to conceive and carry out this one investigation, its founding would have been richly justified.

The JOURNAL extends its warmest congratulations to the man who has made this latest advance movement in the conquest of the disease that holds half the world in thrall, and glories with him in an achievement which must bring honor to the community in which he has developed this expression of his genius.

The Dangers in the Faucet.

The sanitary authorities have had much to say about the "common drinking cup," and wisely, but very little has been said about the ordinary faucet.

It is still a common practice among working men and boys to set the mouth to a faucet for a drink, and even the ordinary "sanitary" (?) drinking fountain, to the uninitiated, is liable to direct contact with the mouth. The abuse in either case needs revision, and the health authorities should go on with their education, so that the evils of this means of contagion may be also set forth, for it is a question if the common drinking cup is any greater menace than the common drinking faucet. Certainly, it cannot be more disgusting.

At the last meeting of the Mississippi Medical Association the State bacteriologist discovered typhoid germs on a faucet used in such manner, and the lesson in even one instance is obvious.

The dangers of the faucet may yet be recognized and combatted, but it will need some provision for a wholesale prevention before the necessity arises, for, if one faucet is found infected, the possibilities of the wholesale infection of a family or community are great.

The individual drinking cup has already grown into large usefulness, and it is quite certain that it must become the custom in time; meantime, however, the note of warning should be sounded against the use of the faucet for direct drinking.

Abstracts, Extracts and Miscellany.

Department of Internal Medicine.

In Charge of Dr. E. M. Dupaquier, New Orleans.

Pernicious Anemia.—H. Roger, director of the Medical Clinic, Faculty of Montpelier, reviews the data on pernicious anemias and relates the histories of two cases which go to show, once more, that there is not a pernicious anemia, a protopathic malady, with absolutely constant characteristics, but that there are many anemias of pernicious origin, with very diverse symptoms and blood formulæ

Pernicious anemia is not a morbid entity, but a great hemato-anatomo—clinical syndrom.

The first case related was that of a pregnant woman, albuminuric, ethylic, presenting a plastic pernicious anemia, an extreme anemia, 850,000 red cells, of which a large number were deformed, a marked leukocytosis, 28,000 white cells, a clinical picture with most discouraging features. Yet, following spontaneous premature accouchement, treatment brought about rapid improvement.

The second case related was that of a male, corpulent, robust and florid aspect, presenting a hypoplastic, cryptogenetic, pernicious anemia, 1,300,000 red cells, a clinical picture more hopeful. Yet, treatment failed. He lost flesh rapidly and in the end his erythrocyte count was 560,000. Attention is drawn to these two patients suffering from the same malady with a clinical picture so different, and with an evolution so contrasting, so unlike.

In the first patient there was a plastic anemia; anemia with re-action of the bone-marrow. Notable, indeed, is the fact that the large number of red nucleated corpuscles seemed to indicate a favorable prognosis, in opposition to the opinion of some clinicians

In the second patient there was no truly aplastic anemia, though nucleated erythrocytes were absent and poikilocytosis was wanting. The author, on account of the presence of eosinophiles, is inclined to place this case in the intermediary group of anemias, the hypoplastic anemias of Chauffard, wherein the reaction of the bone-marrow is present, yet insufficient.—*(Gazette des Hôpitaux,* August 29, 1912.) E. M. D.

Disordered Heart Mechanism.—Many are the valuable hints gathered from Thomas Lewis' excellent handbook on the clinical disorders of the heart beat. To-day, we give the following: The preliminary evidences, the first guides to the identification of a disordered heart mechanism, are the age of the patient in whom it occurs and a knowledge of the frequency of irregularities at different ages. An irregularity of heart or pulse, found before the tenth year, is almost always a sinus arrhythmia. Heart-block may be present during the first decade, but it is rare; a few premature contractions have been noted in quite young children, in most of whom extensive enlargement of the heart has been present. The earliest age at which auricular fibrilation has been seen is 13, and it is very rare before the age of 17.

The relative frequency of disorders of the cardiac mechanism

from adolescence to old age is, in general hospital practice, approximately as follows:

Auricular fibrilation. . .	41%
Premature contractions. . .	34%
Paroxysmal tachycardia	10%
Sinus arrhythmia, heart block and alternation, each. . .	5%

Dealing with those in whom there is obvious evidence of cardiac failure, at least 60% of irregular hearts are irregular because the auricles are fibrilating. E. M. D.

Department of Obstetrics and Gynecology.

In Charge of Dr. P. Michinard and Dr. C. J. Miller, New Orleans.

Statistics of Cesarean Section.—A. Richter *(Monatsschrift fur Geburtshülfe und Gynäkologie,* March, 1912) reports his personal exeprience with a series of 107 cases without any mortality on the part of the mothers and only one fetal death. The cases are presented with particular reference to the puerperal morbidity. Regarding the relation of preliminary vaginal examinations, it was found that the morbidity increased with the frequency of the same. It was also found that the least morbidity attended those cases in which the membranes had not ruptured. The length of the labor did not seem to have any direct influence on the appearance of fever during the puerperium, if other contributing causes could be eliminated. If the placenta was situated on the anterior wall of the uterus, the morbidity was markedly increased and the writer believes that the incision over the placenta should be avoided. Richter also thinks it advisable to have the patient come to the hospital at least two weeks before expected labor in order to avoid contamination from without and to observe the labor in its early stages, so that the operation may be done before the membranes have ruptured and as soon as the cervix has become slightly dilated. In this series of cases the technic included a long median abdominal incision with complete delivery of the uterus and the application of a constricting rubber tube around the lower segment until the child was delivered. The incision in the uterus was closed with two series of silk sutures, after which the hemostatic band was removed

and the uterus returned to the abdominal cavity. The abdominal incision was closed in three layers. In 33% of the writer's cases, sterilization was done by resecting the tubes.—*Amer. Jour. Obst.*

MILLER.

TREATMENT OF PUERPERAL SEPTICEMIA BY BACTERIAL VACCINS. —A series of 100 cases, fifty-six of which were treated with vaccins, furnish the basis of G. T. Western's *(Lancet,* Feb. 10, 1912) conclusions, which are that: The mortality among those cases of puerperal septicemia, in which there is a definite bacteriological evidence of bacteria in the blood stream, is from 85 to 95 per cent. The mortality may by inoculation with autogenous vaccins be reduced to about 55 per cent. The mortality among officially reported cases of puerperal fever is about 60 percent. This mortality may by inoculation with appropriate vaccins be reduced to about 30 per cent. In cases of puerperal sepsis, if it is decided to explore the uterine cavity, the opportunity should not be lost of obtaining a culture at the same time. In the treatment of puerperal sepsis, "stock" vaccins give inferior results and should only be used when an autogenous vaccin cannot be obtained.—*Ibid.* MILLER.

SYPHILIS AND PREGNANCY.—Luigi Mangiagalli *(Riforma medica,* Feb. 10 and 17, 1912) considers the diagnosis of syphilis from the presence of a macerated fetus and the treatment of the mother and child for syphilitic conditions. Maceration is simply a cadaveric condition resulting from the presence of the dead fetus in the amniotic fluid, at a certain temperature without air. The skin softens, becomes red, and the body flaccid. The length of time that the fetus has been dead may be told by the condition of the eyes. The cornea is colored at the eighth day; the crystalline lens at the tenth to the eleventh day. In the majority of such cases syphilis was the cause of death, but not always. The examination for spirochetes in the tissues will often determine this; also microscopical examination of the tissues of the fetus will furnish evidence of syphilis. The syphilitic placenta has specific characteristics; it is very large and heavy; it is edematous and yellowish gray; there are present deforming hypertrophy of the villi and sclerosis of the connective tissue. The cord shows similar alterations. As to the method of infection of the fetus, whether by mother or father, there are four possibilities. The ovule and spermatozoon may be infected and thus give absolutely hereditary syphilis. Or the germ may be transmitted through the placenta, a congenital syphilis

by placental transmission. The spirochetes may be found on both sides of the placenta and in the cord. They have been demonstrated in the testicle and spermatic canal but not in the spermatozoon. There is also a hereditary dystrophy caused by transmission of the poison without the germs. When the father is healthy and mother syphilitic the infection may pass from the mother by an infected ovule or through the placenta. When the parents are both healthy at the time of conception, and become infected during pregnancy, the fetus will generally be syphilitic. It may be apparently healthy, but shows manifestations of syphilis later. If it nurses its mother it will not be infected, because of a sort of immunity caused by the toxins which have penetrated the placenta; but the Wassermann will often be positive in the fetus. The child may be born healthy, because of the length of time of incubation after infection before the secondary symptoms show themselves. If the infection takes place in the sixth or seventh month the fetus may remain normal. If the father is syphilitic and the mother healthy, or the mother appears to be healthy and is not affected in coitus, the fetus is born syphilitic, or with latent syphilis. If nursed by the mother she is not infected, but if nursed by a wet-nurse, the latter will be infected. The transmissibility of the diseases lessens with time. A woman may continue to abort or have premature fetuses for many years after infection. In the father the time of contagion is gradually lessened; in the mother it remains the same. This may be explained thus: the ovules may all be infected and remain infected permanently, while the infected spermatozoa are gradually eliminated. Tertiary lesions are generally regarded as noncontagious. In a woman the contagion of syphilis is not attenuated by time. The husband may be in perfect health and yet the wife continue to abort. The question of treatment is difficult; that treatment will act on the fetus through the placenta has been demonstrated. If the mother is treated a mortality of 75 per cent in the fetus is reduced to 25 per cent; a percentage of abortion is reduced from 30 to 13 per cent. If the treatment is given early the effects are much better. Small doses may be given to the mother and will be effective on the fetus and she will not be harmed by them. The mother should always nurse the child; artificial feeding should never be tried even when the mother appears healthy, since she is not in danger of infection. The best treatment for the child is mercurial frictions.

Treatment through the mother's milk is too slow in its results. Arsenobenzol should be used only when mercury has not had a good effect. MILLER.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

ALLERGY TO COMMON FOOD.—In a boy now eight years old marked urticarial lesions were caused by the ingestion of eggs, almonds and oatmeal. The idiosyncrasy to egg was not congenital, but was acquired at some time between the ages of 10 days and 14 months. Symptoms due to the ingestion of oats appeared some time after the child had first eaten oatmeal when he was 22 months old. As far as could be ascertained, the idiosyncrasy to almonds was manifested the first time this food was eaten. Schloss then undertook a series of experiments to determine the nature of this susceptibility.

It was found that cutaneous inoculation of these and certain related food substances produced an urticarial wheal at the site of inoculation. The cutaneous reaction was produced only by the protein constituents of eggs, almonds and oats. Different proteins from the same source varied in activity, some being incapable of causing a reaction. Some of the active proteins caused urticaria by mere contact with the unbroken skin. It was possible, passively, to sensitize guinea-pigs to ovomucoid (one of the active proteins from eggs) by intraperitoneal injections of the patient's blood serum. By feeding ovomucoid in gradually increasing doses the patient became immune to egg. At the same time immunity to oatmeal and an apparently decreased susceptibility to almonds occurred.—*American Journal Diseases of Children.* J. A. S.

BACTERIOLOGY OF ACUTE INTESTINAL DISEASES OF INFANCY.—The authors hold that the mere presence of a few dysentery organisms in a case of acute intestinal disturbances in an infant does not in itself prove that the organisms have any etiologic relation to the condition. It is only in the severe cases of ileocolitis that the dysentery organisms are present in the stools as one of the predominating types of organisms and it is in these cases which show distinctive lesions of dysentery at autopsy. In only about 20 per cent of the cases of ileocolitis occurring in infancy are dysentery

organisms found. While in some of these cases the infection with dysentery organisms is primary, in others it is probably secondary. The cases of ileocolitis in which dysentery organisms are present cannot be separated clinically from those in which they are absent. Streptococci are present in the stools of about 80 per cent of the cases of ileocolitis. While in the majority of these cases the relation is unimportant, it is probable that in some instances the organisms have a distinct relationship in the etiology of the condition.

Out of nearly one hundred cases examined during the summer they found but one with the B. ærogenes capsulatus and developing a growth in milk heated to 80° C. This child was placed on raw buttermilk, but died three days later. The gas formation, growth and sediments in the dextrose and lactose fermentation tubes varied to such a marked degree in different cases showing the same types of predominating organisms and in individual cases without apparent relation to the clinical condition or changes, that in reality this part of the study gave very little useful information. The same was the case with the growth on and liquefaction of gelatin plates.—*Ibid.* J. A. S.

Sodium Cacodylate in Syphilis.—Spivak, in the *New York Medical Journal* of March 2, 1912, reports a study of the results in forty-three cases from the Genito-Urinary Department of the Jefferson Medical College Hospital, in which he used sodium cacodylate. The following conclusions are reached:

1. Arsenic in the form of sodium cacodylate is useful in syphilis. While its action is not as rapid as that of salvarsan, it accomplishes results not unlike those of salvarsan. It is very reasonable that it should, because the arsenic content of "606" is 34 per cent., while the arsenic content of sodium cacodylate is 48 per cent.

2. Being sure that the salt is pure, and making a solution of it fresh every day. it is non-poisonous to the human system, even in doses as high as five or six grains injected daily for three weeks, or even for a month; in other words, the human system can take in 100 grains of sodium cacodylate in three weeks with no signs of arsenical poisoning.

There is no albuminuria, no signs of ocular disturbance. The only untoward effects ever noticed were slight shooting pains in the muscles, particularly those of the shoulder, and sometimes this reached to a muscular spasm. There is no reaction at the site of injection.

3. The drug should be used for effect, beginning with three grains daily and increasing as results are noted. The drug is cumulative in action, as improvement continues for a week or so after the injections cease.

4. The best results are seen in early syphilis. It has a marvelous effect on the initial lesion and on the maculoroseolar eruptions. This action on the papular syphiloderm is somewhat slower, but in large doses is effective. The drug has practically no effect on the adenopathies. Enlarged cervical, epitrochlear and inguinal glands persist in spite of massive doses. Mucous patches and condylomata clear up readily without any other treatment. The drug has a splendid alterative effect, and can be used for that alone in the course of syphilitic treatment. All patients, whether their lesions were benefited or not, speak of a sense of wellbeing, of added strength, of a better appetite, and even of an increase in weight. On the rupia and tertiary lesions sodium cacodylate has practically no effect.

5. Immediately after the patient has had his course of injections he should be placed on mercury; otherwise the external manifestations recur. It would even be well to alternate a course of mercurial treatment with a course of cacodylate injections. The two drugs seem to be synergistic; one has a stronger effect in the presence of the other.

6. The effect of the drug on the Wassermann reaction is practically nil.

7. The drug should prove to be a useful adjunct in the treatment of syphilis, especially where salvarsan cannot be used, either for financial reasons or through some physical condition of the patient. Sodium cacodylate is cheap, easily prepared, and very easy to administer. J. A. S.

Rœntgenotherapy of Goiter.—Question blanks were sent to a number of German clinicians, asking for their experience in this line. They have no favorable reports to make of rœntgenotherapy for simple goiter, and generally advise against it, but for exophthalmic goiter the majority regard it as fully equal to any other therapeutic method. The thyroid subsides under it, and likewise the specific Basedow symptoms, the exophthalmos, tachycardia, other symptoms on the part of the heart and nervous system, while the general health improves and the patient gains in weight. Krause

urges routine histologic study of thyroids when they are removed or inspected at necropsy after exposures to the Rœntgen rays.

J. A. S.

THE TREATMENT OF PNEUMONIA WITH CAMPHORATED OIL.—Wachter *(Med. Klink.,* 1912, viii, 403) confirms Lowenstein's observations regarding the efficacy of the treatment of lobar pneumonia by camphor. Wachter has been giving his pneumonia patients injections of from three to five c. c. of camphorated oil once or twice a day as a routine measure. He believes that it has a direct sedative action upon the brain; the mental distress subsided, and even the delirious patients became quiet in the thirty cases treated by Wachter. He is also convinced that it is very effectual as a heart stimulant, and in addition it seems to have a beneficial effect upon the dyspnea. J. A. S.

HEXAMETHYLENAMIN IN THE TREATMENT OF BRONCHITIS.—Vanderhoof *(Journ. A. M. A.* of February 3, 1912) reminds us that hexamethylenamin is recommended as a remedy of value in cases of acute colds and in patients suffering from acute and chronic bronchitis. The drug should be given in large doses, accompanied by the copious drinking of water. In the ordinary cold, treatment with hexamethylenamin shortens the stage of coryza and greatly modifies or entirely prevents the succeeding bronchitis. It also acts as a prophylactic against ensuing infection of the accessory nasal sinuses. It is our best remedy in acute bronchitis. Certain cases of chronic bronchitis respond to treatment by hexamethylenamin with gratifying alacrity, while others do not. In the latter instance it is presumed that structural changes have occurred in the walls of the bronchi, associated with thickening and calcification of the cartilages, fibrous membrane and muscular coats so as to preclude the hope of successful treatment by any remedy. J. A. S.

Louisiana State Medical Society Notes.

In Charge of Dr. Joseph D. Martin, Secretary, New Orleans.

Next Annual Meeting: Baton Rouge, April 22-24, 1913.

Report of Chairman of Committee on Public Policy and Legislation.*

To the President and Members of the Louisiana State Medical Society:

Gentlemen—I have the honor to report writing to all the members of the Committe and Subcommittee on Policy and Legislation for the purpose of getting an expression of opinion as to what should be the policy of the Society and what legislation, if any, should be sought at the hands of the next General Assembly of the State.

I imagine that the majority of the committee must be of the opinion of Dr. Smart, for ten years a member of the House, and the others who have replied—that the less legislation asked for by the Society the better, until the public is educated up to the belief that when this Society asks for remedial legislation against the ills that inflict society, and with which it is brought into relation, it is actuated by a consecrating sense of duty, and has no private ax to grind. That a contrary view exists, and that the efforts of this body to improve the tone of the profession in the interest primarily of the public, is looked upon with suspicion as an effort to secure selfish class legislation, is, alas! too true, and "pity 'tis, 'tis true," because it is incumbent on this body to take the initiative in all those measures requisite and necessary to instruct the public hygienically and to secure legislative relief against flagrant and wanton abuses so painfully in evidence, not leaving the entire burden to the State Board of Health, magnificently broad and willing as their shoulders may be.

There should be a closer alignment of this Society with the medical and sanitary services of the State, and both these branches should be wholly divorced from politics—efficiency, adaptability, courage and integrity being the tests of tenure. The constitutionality of the Sanitary Code of the State having been recently attacked in a suit involving the prohibited use of saccharin, Judge Chretien,

*Received for publication October 17, 1912.—Eds.

in an exhaustive and learned review of the law, held it to be constitutional, and sustaining the contention of the Board of Health. This is the most far-reaching decision ever rendered on the subject, and, if sustained by the Supreme Court, will enable the sanitary authorities to strengthen, modify or alter the Sanitary Code to meet the advances in sanitary science; but in the event that the higher court fails to affirm the decision, the Board of Health will be forced to knock at the door of the Legislature for the enacting of its sanitary ordinances and their engraftment into the organic law of the State. In such event, it should be the policy of this Society to exert every effort, collectively and individually, to aid the Board of Health and to counteract the sinister forces that will focus on the Legislature in their dastardly efforts to traffic in human life by the sale of depraved and misbranded foods and drugs. [Since this report was submitted to the State Medical Society the Supreme Court of the State has sustained the decision of the lower court.]

The Society should also be prepared to aid the Board of Health in securing the passage of laws to enforce screening, sewering, draining, and for the sanitary control of factories, bakeries, markets, dairies, etc. Laws to suppress the open privy vault, the curse of the South, which continues to smell to heaven and to reap its annual typhoid harvest, and for the regulation of the garbage-can, which continues to fresco the pavements with its putrescent flavors so attractive to flies and rodents. The question of garbage and rats suggests another upon which time and again I have sounded a note of warning (officially in 1906), to no purpose, and that is the proximity of the bubonic plage to the ports of the Gulf, the danger from which will be greatly increased with the completion of the Panama Canal. Guayaquil, the chief seaport of Ecuador, possesses one of the finest harbors on the Pacific coast; it has been appropriately called the clearing-house of the Western Hemisphere for cholera, yellow fever, smallpox and bubonic plague." Yellow fever is endemic there, 1,000 cases having occurred in the past three years; indeed, the number of cases is limited only by the absence of non-immune pabulum for it to feed upon. Two thousand four hundred and twenty-four cases of bubonic plague occurred in the years 1909-11. Now, this colony of dead and convalescents is only 800 miles from the Panama Canal, while Venezuela, on the Atlantic side, continues to breathe dire contagion to the Antilles; so, if the port of New Orleans proposes to take that place which

her unrivaled geographic position entitles her to as entrepot of the Mississippi Valley, Latin America and Oriental trade, she must be prepared to receive the ships from all parts, and not depend as rigidly on quarantines as in the past for protection.

Her jealous rivals on the Pacific and Atlantic coasts will be quick to take advantage of every untoward condition that may arise. The first step, therefore, is to render her territory immune to yellow fever by the absolute abolition of cisterns and relying on piped water supplies exclusively, together with the other well-recognized measures for the inhibition of mosquito life in every stage of its development. The community that fails in this duty deserves a visitation. Fortunately or unfortunately, yellow fever has lost its terrors since we can extinguish an outbreak in its incipiency, as was done in August, 1906, in this State, if the early cases are reported. Judging the future by the past, it will require a visitation to rouse to action.

But there is a more dreaded disease that calls for immediate action to put the house in order before it knocks, and that is bubonic plague, which imperatively calls for a war of extermination of the billion rat colony of New Orleans. No time like now will ever present itself; the unprecedented rise in the river has driven them from their haunts under the miles of wharves that line the river front in close proximity to warehouses and human habitations.

A wise, constructive statesmanship should call for an emergency appropriation by the next Legislature of a million dollars, or so much thereof as may be needed to enable the State and municipal Boards of Health to undertake their extermination before the river recedes. New Orleans will not be the only beneficiary, for the State at large will likewise suffer should the plague find entrance. The cost should be no deterrent, for the cost of extermination is infinitely less than the value of what they eat and destroy annually. California and the Federal Government have expended thousands of dollars on that State for the suppression of the plague, and yet the infection lingers there in rats and ground squirrels. To institute a successful war against rats, the very first step is the covering and removal of garbage, for the rodents will not eat the poisoned bait as long as they have access to the garbage-can or other food supplies; and the next step is to make the warehouses, grain elevators, markets, dwellings and drains in proximity thereto rat-proof. As to the cost, a dime in time will save nine. We are too poor to stand the expense of not doing our sanitary duty.

I have no desire of posing as an alarmist or calamity-howler. The presence of the ex-president of the Southern Medical Society, Dr. Dyer; its secretary, Dr. Harris, of Mobile, and its present vice-president, Dr. Williams, of Gulfport, reminds me that that body, which reflects the views of the entire medical profession of the South, at the last session in Hattiesburg, went on record as advocating rat-extermination in the ports of the Gulf and South Atlantic. Dr. Howard King, of this city, yesterday called my attention to his article in the November, 1911, number of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, wherein he enters more fully into the subject. This article, which has met the editorial commendation of a score of medical journals, including the London *Lancet,* should be in the hands of every medico.

This Society cannot afford to ignore the consideration of medical sociology and eugenics, especially with reference to adequate scientific regulation of the "oldest profession in the world"—prostitution —on lines that have proved so effective in Dresden and Antwerp in limiting venereal diseases, and with special reference to limiting crime, disease and degeneracy, by legalizing vasectomy and salpingectomy, now the law in Oregon, Indiana and Connecticut. The sanitarian may be pardoned for a feeling of wearied disgust at the mock modesty that decries public discussion of sexual hygiene, and the consideration of those questions undermining the vitality, integrity and morality of the race, while reveling in its salacious instincts in the disgusting details of a Thaw trial in the yellow Sunday papers.

Now, should this body shut its eyes to the increase in the drug addiction habit? The United States to-day, China not excepted, leads the world in the per capita consumption of opium and cocain, the consumption of the former amounting to half a million pounds per annum, while 13,500 ounces of cocain are illegitimately consumed, as against 15,000 ounces used medicinally.

It should be the fixed policy of this Society to secure medical inspection of all schools. In the conservation of our national resources, the child is the most valuable asset, from a sordid, mercenary viewpoint; if from no higher motive, its interests, and, above all, its health, should be jealously guarded. There is no excuse for recrudescences of variola in communities affecting the schools, for the compulsory vaccination law, as a condition precedent to entry in the schools, covers the case; so the persistence of diphtheria is

proof that an unrecognized carrier is abroad, for the control of this disease depends on the control of the carrier as well as the case, since the organism has been found virulent after eight months in ear and nose, showing that swabs should invariably be taken from all contacts, and the latter isolated until the bacteriological report shows them free.

Dr. Harrell (12-F.), of this committee, writes that there are three laws that should be enacted:

(1) A "law exempting any woman from criminality in case of criminal abortion, provided she turns State's evidence and testifies against the abortionist."

(2) A law forcing railroad companies in the State to have their injured treated within the bounds of the State where the accident occurs and where the company takes charge of the patient and furnishes medical treatment.

(3) A law making the reprehensible "practice of fee-splitting" a misdemeanor and punishable by fine.

Dr. Harrell is also of the opinion that the optometrists will endeavor to get their measure through the Legislature, as they have done in other States, and that this body should use its influence against it.

Dr. Brown, of the Board of Medical Examiners, has an act to amend Sections 5 and 11 of the Medical Practice Act, the provision which he will doubtless lay before this body.

Dr. Kelly, of this committee, writes that he is not "in favor of the act in regard to midwifery as written, but favors Section 2 of the act."

The magnificent enthusiasm with which Dr. Brown has entered upon his work, and the personal cost and sacrifice he has made, should urge this body to endorse his demands that the Board of Examiners shall be at least self-sustaining.

Having delayed the preparation of this report to the last moment in the hope of getting further light from the committee, many questions of great pith and moment remain untouched, which it shall be the policy of this Society to investigate and exhaustively discuss: such as the sanitary control of tuberculosis and its protean phases, the revocation of license of the criminal abortionist, as well as his criminal prosecution; the subject of medical expert testimony, and the criminal responsibility of the insane, should be fully discussed by this Society.

The chief topics of the report are of such a pressing nature that, as a body, we cannot afford any longer to ignore them; we cannot afford, by silence, to give consent to the existing apathy until we are aroused from a fool's paradise by the rude shock of epidemic visitation.

Respectfully submitted,

FRED. J. MAYER, M. D., Chairman.

Adopted.

RESOLUTIONS.

From the Committee on Public Policy and Legislation, offered by Dr. Fred. J. Mayer and referred by the House of Delegates to the Society, where they were unanimously adopted:

(1) *Resolved,* That it is the sense of the State Medical Society that the medical and sanitary services of the State should be entirely removed from the plane of politics, efficiency, adaptability, courage and integrity being the tests of tenure.

(2) That, in the event that the constitutionality of the Sanitary Code of the State is not sustained, that the same should be engrafted in the organic law of the State.

(3) That this Society sounds a grave note of warning:

(a) Against the proximity of the bubonic plague in South America and the West Indies, the dangers from which will be immeasurably increased with the completion and opening of the Panama Canal, bringing the port of New Orleans in closer relation to Guayaquil, the clearing-house of the Western Hemisphere for plague and yellow fever, and that the price of immunity is to institute immediately a war of rat-extermination, taking advantage of the present high stage of the river, which has driven them from their haunts under the miles of wharves that line the river front, to institute measures for their destruction. That these measures call for the prompt covering and removal of garbage and the rat-proofing of warehouses, markets, granaries and dwellings and drains in close proximity to the wharves.

(b) That a wise, constructive statesmanship would lead the Legislature to appropriate a million of dollars, or so much thereof as might be needed, for rat-extermination, as the annual cost of feeding the vermin in what they eat and destroy exceeds the cost of their extermination.

(c) That rigid laws for the protection of hawks, owls and other rodent-feeding birds and snakes be enacted and rigidly enforced.

(d) It also points to the necessity of abolishing cisterns in a necessary scheme of inhibiting mosquito life in New Orleans as a condition precedent to immunity from imported yellow fever.

(4) That the Society calls attention to the increase in the drug-addiction habit and to the enormous consumption of opium and cocain in this and other States beyond the legitimate use thereof in medicine and surgery, to the detriment of the public health and the best interests of society, and earnestly urges public discussion of the evil.

(5) That the laws applying to the unspeakable typhoid hatcheries of the South, the open vault system, should be strengthened and enforced.

(6) That medical inspection of schools should be universal throughout the State, especially with reference to carriers and contacts of infection, since the control of the carrier is as important as the control of the case.

(7) (a) That a law should be enacted exempting any woman from

criminality in case of criminal abortion, provided she turns State's evidence and testifies against the abortionist; (b) providing for revocation of the medical license of the criminal upon conviction.

(8) This Society urges upon its members, through the Parish Societies, to study and publicly discuss the problems of medical sociology and eugenics, and the necessity in limiting crime, disease and degeneracy, of legalizing vasectomy and salpingectomy, now the law in Oregon, Indiana and Connecticut.

(9) That this Society is of opinion that a law should be enacted forcing railroad companies in this State to have their injured treated within the bounds of the State in which the accident occurs, and where the company takes charge of the patient and furnishes medical treatment.

(10) That a law should be enacted making the reprehensible practice of fee-splitting a misdemeanor and punishable by fine.

(11) That the Optometric Bill presented to various and sundry Legislatures is against the best interests of the public.

(12) That the Medical Practice Act should be amended on the lines asked for by the Board of Medical Examiners, to the end that said Board may become self-sustaining.

New Secretary of State Society.

New Orleans, September 26, 1912.

Drs. Chassaignac and Dyer,

Editors New Orleans Medical and Surgical Journal, City:

Gentlemen—Owing to ill health, Dr. Joseph D. Martin has resigned as Secretary of the Louisiana State Medical Society, and the President has appointed Dr. L. R. De Buys to fill the unexpired term. Yours very truly, Geo. Augustin, Assistant Secretary.

Parish Meetings.

Avoyelles Parish Medical Society.—The Avoyelles Parish Medical Society met at Mansura on October 10, 1912, with the following members present: Drs. H. T. Lemoine, T. A. Roy, George L. Drouin, W. F. Couvillon, G. R. Fox, Leonard Chatelain, B. J. Lemoine, R. G. Ducoté and P. E. Brahic. Dr. G. R. Fox gave a talk on "Hookworm," which was discussed by the other members. Various other subjects were discussed, after which the Society adjourned, to meet again at Marksville next January.

The Revised Tax Amendments Affect Physicians' Licenses.

New Orleans, La., October 10, 1912.

Dear Doctor—At the approaching general election (November 5) there will be voted throughout the State certain proposed tax amendments of the Constitution. It is not within our province to dictate to the profession how they shall vote on this or other political questions of political economy, we think it proper to direct attention to the fact that, under the proposed tax reform measures, the occupation or license tax on doctors, both State and local, will be done away with completely. This Association has been working for years to secure this relief. This exemption also applies to dentists, midwives and all specialists, such as oculists, aurists, etc. Yours truly,

Louisiana State Medical Society,

(Signed) B. A. Ledbetter, M. D., President.

L. R. De Buys, M. D., Secretary.

Medical News Items.

THE INTERNATIONAL CONGRESS OF MEDICINE will meet in London, England, August 6 to 12, 1913. The executive committee for the United States consists of the following: Wm. S. Thayer, M. D., of Baltimore, president; Alfred Reginald Allen, M. D., of Philadelphia, secretary; Frank Billups, M. D., of Chicago; Wm. T. Councilman, M. D., of Boston; Geo. W. Crile, M. D., of Cleveland, Ohio; John B. Elliott, Jr., M. D., of New Orleans; J. Marshall Flint, M. D., of New Haven, Conn.; Albion W. Hewlett, M. D., of Ann Arbor; Abraham Jacobi, M. D., of New York; Lawrence Litchfield, M. D., of Pittsburg; Herbert C. Moffitt, M. D., of San Francisco. Applications for membership in the Congress can be obtained from the secretary, Dr. A. R. Allen, 2013 Spruce street, Philadelphia. Arrangements are now being perfected for a pleasant trip to attend the Congress, providing for a tour of England, Ireland, Scotland, France and The Hague. Several days will be spent in Paris, Brussels, Cologne, Heidelberg, Amsterdam, including an excursion to Isle of Marken. Those who wish, may spend some time in clinics of Vienna and Berlin. Hotel accommodations have been secured in London, and tickets will include all expenses. Sailing from New York, July 10. Those desiring to register with the party, or who wish a copy of the complete itinerary, will address Dr. Chas. Wood Fassett, secretary Medical Society of the Missouri Valley, St. Joseph, Mo.

ANNUAL CONFERENCE OF STATE SANITARY OFFICERS.—The annual conference of sanitary officers of the State of New York will be held in Syracuse on Wednesday, Thursday and Friday, December 4, 5 and 6.

MUNICIPAL CONTROL OF PLAGUE.—Surgeon General Rupert Blue, of Washington, D. C., says that, to eradicate plague from a city, it is necessary to have an organization for that purpose, and to have laws covering the necessary sanitation. The continued enforcement of rat-proofing laws in a city that had once been infected was emphasized as the best insurance against a recurrence of the disease. Plague has to be eliminated from the history of mankind by the application of similar principles wherever infection

exists. By international regulation all vessels should be fumigated periodically to kill rats. Infected ports should have a medical surveillance of outgoing traffic. Notification should include both epidemic and epizootic foci of the disease.

Pellagra Cause a Mystery.—That the cause of pellagra is still a mystery, that there is no reason to suppose that the disease is directly infectious, and that there is no known specific remedy for the disease, were conclusions expressed in resolutions adopted by the National Congress for the Study of Pellagra at the closing session of its triennial meeting at Columbia, S. C., October 5, 1912. The officers elected at the meeting were as follows: Dr. C. H. Lavinder, United States Public Health Service, president; Dr. J. F. Siler, Medical Corps, U. S. A., first vice-president; Dr. C. C. Bass, Tulane University, New Orleans, second vice-president; Dr. J. W. Babcock, Columbia, secretary; Dr. J. A. Hayne, president of the South Carolina Board of Health, treasurer.

The Tri-State Medical Society of Arkansas, Louisiana and Texas will hold its annual meeting at Shreveport, La., November 12 and 13, 1912. The program is now in course of preparation. All contributors to the program are urged to send in titles of papers to Dr. J. M. Bodenheimer, First National Bank Building, Shreveport, La.

Cancer Cure Discredited.—Prof. Vincenz Czerny, surgeon and bacteriologist at Heidelberg University and a world famous investigator of cancer, has sent a telegram to the German Medical Congress, dealing with the lately reported cancer cures. "A specific remedy for cancer has not yet been found," he says, "and possibly never will be discovered." The widely heralded chemotherapeutic treatment by metallic salts, the professor continues, only rarely has cured mice, and it is too dangerous as yet to apply to human beings. Prof. Czerny, in conclusion, deplores the negligence of the various governments in failing to finance investigations into the disease.

Education Only Method to Eradicate Hookworm.—Wickliffe Rose, secretary of the Rockfeller Sanitary Commission, in charge of the hookworm eradication in the South, told the American Public Health Association, recently in session at Washington, D. C., that a long, persistent campaign of education was the only

method of getting rid of the disease, which was due to soil pollution.

Destitution Due to Tuberculosis.—Tuberculosis is the cause of more than 8 per cent of the destitution in New York City, according to the results of an investigation by the Association for Improving the Condition of the Poor. The 6,500 families that sought aid from the association during the last year were the basis of study.

Physical Examination of Motorists.—F. M. Bogan states that in Germany legislation provides for the physical examination of persons applying for motor licenses. This examination is much more rigid than might be expected. Of course, nearly normal vision and hearing are required. Those having squinting or astigmatic eyes, the color blind, and the night blind are rejected. In the case of hearing, the whispered voice must be heard at nine feet. Especial attention is paid to those suffering from neurasthenia, giddiness, or insanity—these, of course, being barred. The arm and the leg most used in operating a machine must be normal, and in case the applicant has lost one or more fingers, or has deformities of the hand, he is given an opportunity to demonstrate his fitness or unfitness for driving a car. The provisions of this examination are so eminently sound and practical that the general adoption of regulations along the same lines would, in the author's opinion, very greatly reduce the excessive number of automobile accidents in this country.—*Lippincott's Magazine,* September, 1912.

The Governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkey will give a fourteenth series of clinical lectures on diseases of the skin, in the out-patient hall of the hospital, on Wednesday afternoons, from October 30 to December 18, 1912, at 4:15 o'clock. The course will be free to the medical profession on the presentation of their professional cards.

Honor For Dr. Washburn.—At the closing session of the recent annual convention in Detroit, Mich., of the American Hospital Association, Dr. Frederick A. Washburn, administrator of the Massachusetts General Hospital, was elected president of the association for the ensuing year.

The College of Medicine of Syracuse University.—At the opening exercises, Chancellor James R. Day stated that the contract for the new dispensary, which, for efficiency will be the equal of any in the land, was about to be let. Prof. Henry L. Elsner gave the opening address, "Traditions and Ideals."

Clinical Congress of Surgeons of North America.—Announcement is made that this body will meet in New York City, November 11 to 16, with headquarters and Registration Bureau at the Waldorf-Astoria Hotel.

Personals.—Dr. Gally Wogan is now located at suite 705-708 Macheca Building.

Drs. Chalaron and Verdier announce their association in limited special practice, and they are to be located at the Maison Blanche, New Orleans.

Removals.—Dr. C. A. Bahn has removed to Cusachs Building, New Orleans.

Dr. C. D. Simmons, from Orlando, Okla., to Stillwater, Okla.

Dr. M. M. Thompson, from Jesseca, La., to Kevil, Ky.

Louisville Monthly Journal of Medicine & Surgery, from 111 W. Kentucky Street, to 705 S. 3rd Annex W. G. Bldg., Louisville, Kentucky.

Dr. A. E. Geusch, from Norman, Okla., to Cottonwood Falls, Kansas.

Dr. Geo. T. Elliot, to 128 East 35th Street, New York City.

Died.—On Sunday, September 29, 1912, Dr. St. Mark Fortier, aged 47 years, a native of Jackson, Ga., and a prominent physician of this city for the past twenty-one years. Dr. Fortier was at one time assistant house surgeon of the Charity Hospital and for many years was the house physician of the Louisiana Retreat for the Insane.

Obituary.

At a recent meeting of the faculty of the New Orleans Polyclinic, it was resolved to prepare a statement regarding the late Prof. P. E. Archinard, this statement to be engrossed in the minutes of the faculty, a copy sent to the doctor's wife, and to

be published in this JOURNAL. This statement is printed in lieu of the usual hackneyed resolutions and is as follows:

"Dr. P. E. Archinard died in New Orleans on August 23, 1912, after a long and painful illness. Though harassed for several years by a slowly-consuming malady, he worked bravely on, distinguishing himself in his many fields of endeavor.

"Gifted with an intelligence of high order, an indomitable will, an inordinate capacity for work, and a moral stature characterized by a strong sense of honesty and loyalty, he achieved real success. He left his indelible stamp upon the medical history, not only of his native State, but of the world.

"The breadth and thoroughness of his attainments, combined with a generous endowment of common sense and kindness of heart, made him the true physician that he was. Sound of judgment, he was a stern and stout defender of the truth as he saw it.

"To those who knew him well, and, therefore, loved him, none of his many traits of character shone brighter than his intense hatred of sham. So repugnant was it to his nature that the individual found guilty of this fatal flaw of character gave rise in him to a feeling of distrust and contempt overshadowing the person's real merit.

"As Professor of Nervous Diseases in the New Orleans Polyclinic, of which he was a charter member, he was always the practical, thorough, forceful teacher, admired and beloved by his pupils; as a fellow-member of its faculty, he was a bulwark of strength, owing to his wise counsel and readiness to work for its welfare.

"To his friends, death has made a void that none can fill. Only time, the great healer, aided by calm philosophy, may dull the edge of their deep regret."

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Practical Gynecology, by E. E. MONTGOMERY, M. D., LL. D. P. Blakiston's Son & Co., Philadelphia, 1912.

This is the fourth edition of Dr. Montgomery's well-known text-book on gynecology. It now appears revised, and in many parts rearranged.

The author states that the new arrangement is the result of his experience as a teacher. It begins with special anatomy, which is followed in order by physiology, etiology, diagnosis, therapeutics, general and special; functional disorders, malformations, traumatisms; inflammation; displacements, ectopic gestation, and genital tumors.

The chapters on acute and chronic inflammation of the uterus and peritoneum are largely rewritten. Vaccin and serotherapy are carefully considered. More space is devoted to pathology and microscopic diagnosis than in former editions.

Dr. Montgomery's ripe experience as a teacher and clinician is reflected throughout the book, and it will no doubt meet with the same reception given to previous editions. MILLER.

A Manual of Surgical Treatment, by CHEYNE AND BURGARD, in five volumes

The second volume of the revised edition, now published, is a valuable work. The authors, in this contribution to surgery, have wisely chosen their subject. To the general practitioner who, by force of circumstances, is compelled to handle surgical cases, the want of experience in the treatment of these cases is always a stumbling block. Post-graduate schools, in surgical branches, especially, furnish the student with a world of operative material, and most of the attendants leave after a limited course with a thorough knowledge of operations and operative technic, but, for want of time, few gain any knowledge of the after-care of these cases, and the first complications prove a menace to the patient. Such a work as this is bound to prove of inestimable value to any practitioner who is at a distance from a medical centre or who has not had a hospital experience. As the authors frankly state, all methods of treatment are not suggested, but such as from a personal experience, or long usage, have proven most valuable, and this statement is borne out, as one will see by a study of the book.

This volume contains the treatment of surgical affections, tissues, nails, lymphatic vessels and glands, bursæ, muscles, tendons, nerves, blood vessels, bones and amputations. Each subject is as thoroughly treated as space will permit, and all written and illustrated in a most comprehensive manner, and the book should prove most popular with the profession. MARTIN.

Publications Received.

P. BLAKISTON'S SON & COMPANY, Philadelphia, 1912.

Further Researches Into Induced Cell-Reproduction and Cancer, by H. C. Ross, M. R. C. S., L. R. C. P. Volume II.

PAUL B. HOEBER, New York, 1912.

Symptoms and Their Interpretation, by James McKenzie, M. D., LL. D.

Diseases of Women, by Arthur H. N. Leweis, M. D., F. R. C. P.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1912.

Making Good on Private Duty, by Harriet Camp Lounsberry, R. N.

Internal Medicine, by David Bovaird, Jr., A. B., M. D.

Brain and Spinal Cord, by Dr. Med. Emil Villiger, translated by George A. Piersol, M. D., Sc. D.

C. V. MOSBY COMPANY, St. Louis, 1912.

Muscle Spasm and Degeneration—Intrathoracic Inflammations and Light-Touch Palpation, by Francis Marion Pottenger, A. M., M. D., LL. D.

Miscellaneous

Pennsylvania Health Bulletin for April: *How to Organize a Baby-Saving Show; Drowning.*

Biennial Report of the Board of Health of the City of New Orleans for 1910-11. (Brandao Printing Company, New Orleans, 1912.)

Rabies in the United States During the Year 1911, by A. M. Stimson. (Washington Government Printing Office, 1912.)

Illinois State Board of Health Monthly Bulletins: December, 1911; January, February, March, April, 1912.

Report of the Department of Sanitation of the Isthmian Canal Commission, for the months of May and June, 1912.

Monthly Bulletin of the Department of Health of the City of New York.

Public Health Reports, Nos. 33, 34, 35, 36, Volume 27. (Washington Government Printing Office, 1912.)

Report of the Health Department of the City of Wilmington, North Carolina, for the year ending May 31, 1912.

Bulletin of the University of Tennessee, College of Medicine, Memphis, Tenn.

Catalog of the Atlanta College of Physicians and Surgeons, Atlanta, Ga.

Public Health Reports, Nos. 37-40. (Washington Government Printing Office, 1912.)

Anti-Rat Ordinances of San Francisco, Cal.; Oakland, Cal., and Seattle, Wash. (Washington Government Printing Office, 1912.)

Report of the Department of Sanitation of the Isthmian Canal Commission for the Month of July, 1912.

Mortality Statistics—Tenth Annual Report. (Washington Government Printing Office, 1912.)

Active and Passive Immunization Against Plague, by Wade H. Frost.

Catalogue of Medical and Surgical Works Published in the United States, 1912-1913.

Instrucciones Populares sobre la Peste Bubonica; La Rabia Medios de Precaverla. (Secretaria de Sanidad Y Beneficencia, Habana, Cuba.)

Reprints.

The Post-Mortem Diagnosis of Plague, by Rupert Blue.

Leprosy in the United States. Washington Government Printing office, 1912.)

Resolutions Adopted by the Tenth Annual Conference of State and Territorial Health Authorities, with the Public Health and Marine Hospital Service, Washington, June 1, 1912. (Washington Government Printing Office, 1912.)

Studies of Plague, A Plague-Like Disease, and Tuberculosis Among Rodents in California, by George W. McCoy and Chas. W. Chapin.

The Physical Welfare of Policy-Holders, and What Life Insurance Companies Can Do to Increase It, by Eugene L. Fisk, M. D.

A Third Contribution to the Etiology of Beriberi, by Weston P. Chamberlain, Edward B. Vedder and Robert R. Williams.

The Technique of the Laboratory Examination of Rodents for Plague, by George W. McCoy; *Technique Employed in the Examination of Rodents for Plague,* by Donald H. Currie.

The Eradication and Prevention of Bubonic Plague, by William Colby Rucker.

The Physician and His Place in the Community, by Seth Scott Bishop, M. D., LL. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans

FOR SEPTEMBER, 1912.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	5	2	7
Intermittent Fever (Malarial Cachexia)	3	2	5
Smallpox			
Measles	1		1
Scarlet Fever			
Whooping Cough	1		1
Diphtheria and Croup	1		1
Influenza	1		1
Cholera Nostras			
Pyemia and Septicemia	1	2	3
Tuberculosis	34	34	68
Cancer	19	3	22
Rheumatism and Gout			
Diabetes	5	1	6
Alcoholism	1		1
Encephalitis and Meningitis	4	2	6
Locomotor Ataxia	1		1
Congestion, Hemorrhage and Softening of Brain	16	11	27
Paralysis	4		4
Convulsions of Infants			
Other Diseases of Infancy	10	6	16
Tetanus	1	2	3
Other Nervous Diseases	2	1	3
Heart Diseases	35	29	64
Bronchitis			
Pneumonia and Broncho-Pneumonia	11	11	22
Other Respiratory Diseases	3	1	4
Ulcer of Stomach	2		2
Other Diseases of the Stomach	7	3	10
Diarrhea, Dysentery and Enteritis	22	12	34
Hernia, Intestinal Obstruction	6	2	8
Cirrhosis of Liver	4	3	7
Other Diseases of the Liver	3	1	4
Simple Peritonitis		2	2
Appendicitis	5		5
Bright's Disease	30	35	65
Other Genito-Urinary Diseases	10	7	17
Puerperal Diseases	11	2	13
Senile Debility	4	1	5
Suicide	7	1	8
Injuries	19	19	38
All Other Causes	23	11	34
TOTAL	312	206	518

Still-born Children—White, 24; colored, 26; Total, 50.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 13.76; colored, 24.47; Total, 16.66.

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

Mean atmospheric pressure.....29.94
Mean temperature.....82.
Total precipitation.....3.84 inches
Prevailing direction of wind, northeast.

New Orleans Medical and Surgical Journal.

VOL. LXV. DECEMBER, 1912. No. 6

Original Articles.

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

The Determination of The Functional Activity of The Liver as Indicated by The Presence of Urobilinogen In The Urine.*

By ALLAN EUSTIS, B. S., Ph. B., M. D., New Orleans.

While investigating the bearing on medicine of the several anilin dyes, which enabled him to discover salvarsan, Paul Ehrlich found that when an acid solution of paradimethylamidobenzylaldehyde was added to certain urines a bright red color was produced.

He published his results in 1901[1], and in 1903 Pappenheim[2] called attention to the occurrence of this reaction in only those urines which, on standing, gave the reaction for urobilin, and Neubauer[3], the same year, demonstrated that the reaction is due to urobilinogen, a colorless chromogen occurring in certain pathological urines, attention to which was first called by Saillet[4]. Later Richard Bauer[5] proved conclusively to my satisfaction that the reaction is due to urobilinogen, and as far as I can ascertain he was the first to call attention to its clinical significance; while now the

*Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

aldehyde reaction is a routine procedure in the Austrian and German clinics.

To understand the clinical significance of the reaction, one must be conversant with the physiology of the bile. The bile pigment, bilirubin, as shown by Beck[6], Bauer[7] and Fr. Müller[8], is reduced in the intestines to urobilinogen, which in turn is reabsorbed by the portal circulation and transformed by the liver cells again into bilirubin, to be again excreted into the intestines as bilirubin in the bile. On exposure to air and light, urobilinogen is oxidized to urobilin, and the presence of urobilin is taken by some as an index of hepatic function.

The aldehyde reaction is so easily carried out, and, when strong, is so simple to interpret, that I cannot understand why it has not met with more universal favor in this country. The reaction is performed as follows: To ten cubic centimeters of freshly-passed urine is added two or three drops of a solution of four gms. of paradimethylamidobenzylaldehyde in 200 c. c. of 20 per cent hydrochloric acid. In the presence of urobilinogen a scarlet red color is imparted to the urine, which persists on dilution with water. The red solution gives a definite absorption band in the spectrum in the orange-red between D. and E., so that with the spectroscope one can detect very minute quantities of urobilinogen in the urine.

For clinical purposes, contrary to the opinion expressed by Sahli[9], I think the spectroscopic examination is not essential, as a little experience with urines in which it is strongly positive allows one to recognize the red color at once.

I have also observed that, while urines in which there is no urobilinogen may give a reddish color (due to pyrrol derivatives) on the addition of the reagent, on diluting with water the reddish tinge changes to yellow, while those urines giving a *positive* aldehyde reaction change to pink, the color persisting up to a very high dilution. Granted that urobilinogen is the antecedent of urobilin, the experiments of Beck[10] have a direct clinical bearing in connection with the aldehyde reaction, as is evidenced by the cases reported below.

Beck *(loc. cit.)* demonstrated that urobilin is a normal constituent of dog's bile, but that if a biliary fistula is produced so that no bile can enter the intestines the urobilin in the bile gradually diminishes and finally disappears altogether, to reappear in the bile again when the animal is fed his own bile obtained from the fistula.

According to Bauer[11], if the common bile duct of a dog is ligated, in three hours the urine will give a positive aldehyde reaction; on the second day the urine will show the presence of bile pigments and still give the aldehyde reaction; on the third day there will be a very strong reaction for pigments, but only a slight aldehyde reaction, while on the fourth day there will still be a strong pigment reaction, but no aldehyde reaction. On feeding ox bile to the dog the aldehyde reaction will reappear.

What are the clinical points to be derived from these experiments? First, the presence of the aldehyde reaction in the urine denotes lack of liver function, cirrhosis, carcinoma, etc., the degree of loss of function being denoted by the intensity of the reaction. *(b)* In a case of icterus from occlusion of the common duct, in which there has been an absence of the aldehyde reaction, if this suddenly reappears it denotes a reappearance of bile in the intestines or an overcoming of the obstruction. *(c)* In cases of diagnosed cholelithiasis in which for some reason operation is deferred, and in which the aldehyde reaction has been present, but has disappeared, and persists negative for several days, immediate operation is indicated to overcome the obstruction.

These facts have all been proven clinically by Müller[12], Bauer[13], Neubauer[14], Hilderbrandt[15] and others, and I wish only to add a few more cases demonstrating the clinical importance of this reaction, as it has not met with the approval in this country which I consider the procedure deserves.

CASE 1. Mr. M. A. J., native of Mississippi, 56 years old, had had severe pains in epigastrium for three weeks, accompanied by fever and jaundice, and when seen by me, with Dr. Parham, showed all symptoms of cholethiasis, but on account of his poor physical condition it was doubtful if operation was justifiable. His urine gave a negative aldehyde reaction, showing occlusion of the common duct. At the operation by Dr. Parham a large biliary calculus, measuring one and one-half inches by three-fourths of an inch, was removed, with ultimate recovery of patient.

CASE 2. J. D. C., a clinic patient at the Presbyterian Hospital, presented himself with ascites, tubercular infiltration of both lungs, and temperature ranging from 100° to 102½°. He gave a history of chronic alcoholism, and, as the ascites was his chief complaint from a therapeutic standpoint, it was important to determine if the condition was due to cirrhosis of the liver, which could not be outlined on account of the ascites, or to a tubercular peritonitis. The aldehyde reaction was negative, which, in the absence of any jaundice showed the liver to be functioning properly, so that a diagnosis of tubercular peritonitis was made, which was later confirmed.

CASE 3. Mr. A. McA., civil engineer, 51 years old, came under my observation with great dypsnoea, from cardiac dilatation, vomiting and pain in the region of the liver, which was enormously enlarged, boggy and tender to pressure. There was a positive aldehyde reaction from passive

congestion of the liver, which slowly disappeared as the heart compensated. This case was under my observation for a period of twenty-one days, during which time his heart compensated and dilated again, on account of indiscretions, three different times. As the heart compensated, the aldehyde reaction would disappear, while on dilatation it would reappear. While no conclusions can be drawn from a single case, it will be of interest to note in the future, in other cases, if this reaction will not be of service in determining functional activity of the heart.

Below are tabulated the results of 363 cases in which the reaction was used, and in which a positive reaction was obtained in only those cases where there was evidence of interference with liver function:

DISEASE.	NO. CASES OBSERVED.	ALDEHYDE REACTION. No. Pos.	No. Neg.
Abscess of liver (amebic)	2	1	1
Acute bronchitis	10	0	10
Acute catarrhal jaundice	4	2	2
Acute diarrhea	15	2	13
Acute parotitis	15	0	15
Alimentary glycosuria	5	2	3
Aneurism (thoracic)	4	2	2
Amebic dysentery	2	0	2
Appendicitis (acute)	3	0	3
Appendicitis (chronic)	2	0	2
Arteriosclerosis	39	25	14
Arthritis deformans	4	1	3
Banti's disease	2	0	2
Cholethiasis (common duct)	2	2	0
Cholethiasis (simple cystic)	2	0	2
Chronic gonorrhea	5	0	5
Chronic intestinal toxemia	45	10	35
Chronic passive congestion of liver (cardiac disease)	4	4	0
Chronic valvular heart disease	59	4	55
Cirrhosis of liver (alcoholic)	6	6	0
Cystitis	5	0	5
Diabetes mellitus	8	2	6
Eczema	2	0	2
Erythema multiforme	2	0	2
Exophthalmic goitre	3	0	3
Malaria fever, tertian	6	2	4
Myxedema	1	0	1
Nephritis, chronic parenchymatous	3	0	3
Nephritis, chronic interstitial	10	5	5
Peritonitis, tubercular	2	0	2
Pernicious anemia	1	0	1
Pneumonia, lobar	2	0	2
Pneumonia, lobular	3	0	3
Rheumatism, acute articular	2	0	2
Rheumatoid arthritis	9	3	6
Scarlatina	2	0	2
Syphilis, primary	3	0	3
Syphilis, secondary	5	2	3
Syphilis, tertiary	15	6	9
Tinea circinata	3	0	3
Tinea saginata	2	0	2
Typhoid fever	4	0	4
Tonsilitis, acute follicular	4	0	4
Tuberculosis, pulmonary	20	2	18
Ulcer of stomach	3	0	3
Uncinariasis	8	2	6
Urticaria	3	2	1
Vincent's angina	2	0	2
	363	87	276

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1. Ehrlich. *Münch. Medizinische Wochenschr.*, 1901, No. 15.
2. Pappenheim. *Berliner Klin. Wochenschrift*, 1903, No. 2, p. 42.
3. Neubauer. *Sitzungsbericht der Gesellschaft für Morphologie u Physiologie in München*, July, 1903, Heft 2.

4. Saillet. *Revue de Medicine,* 1897, No. 2.
5. Bauer. Die Ehrlich'sche Aldehydereaktion im Harnund Stuhl: *Zentrallblatt für Innere Medizin,* No. 34, August, 1905, p. 833.
6. Beck. *Wiener Klin. Wochenschrift,* 1895.
7. Bauer, *loc. cit.*
8. Quoted by Bauer, *loc. cit.*
9. Sahli. A Treatise on Diagnostic Methods of Examination. W. B. Saunders, 1911, p. 585.
10. *Loc. cit.*
11. Bauer. Personal Communication.
12. Quoted by Bauer, *loc. cit.*
13. *Loc cit.*
14. *Loc. cit.*
15. *Zeits. f. Klin. Med.,* 1906, Vol. 9.

Discussion on Dr. Eustis' Paper.

Dr. Randolph Lyons, New Orleans: About three years ago I had occasion to try the test that has been described by Dr. Eustis, although I did not make as many tests as he has done, consequently my results may not be justified. I found the test rather conflicting in some instances. I took the urine of two cases, made the tests at that time, one of which gave a positive reaction and the other negative. The first case had a functional trouble of the liver (catarrhal jaundice). The other case was clearly one of cirrhosis, with a history of alcoholism, and in this the result was negative. After making two dozen reactions of that kind, and not getting definite results, I came to the conclusion that the test was not worth very much, but as Dr. Eustis has made two or three hundred, his results may prove the test to be of more value than I at first thought.

Dr. Eustis (closing): I am glad Dr. Lyons brought out the point as to the reliability of the test, and that is the principal reason for my presenting this subject, because the test has not met with the favor in this country which I think it deserves. In Germany it has been generally adopted and is practiced as a routine measure in making urinary examinations.

In the second case cited by Dr. Lyons the question arises whether there may not have been some obstruction to the flow of bile into the intestines. If there is no bile getting into the intestine there would be a negative reaction. In the first case we would expect a positive reaction. It is incumbent upon us to use the test for diagnostic purposes in pathological conditions of the liver. In only a few cases is it necessary to use the spectroscope to determine whether there is a real action or not.

The Diagnosis of Aneurism of The Thoracic Aorta.*

By ISAAC IVAN LEMANN, M. D., New Orleans.

It has been my growing conviction that aneurism of the thoracic aorta is much more frequent than is commonly supposed. Deaver says it "is of frequent enough occurrence to be sought for in all who have passed the meridian of life." I believe that this should be qualified to cover every age. In discussing the diagnosis of thoracic aortic aneurism Osler quotes approvingly the dictum of Jenner: "More mistakes are made by not looking than by not knowing."

The number of cases of cylindrical and saccular aneurisms that have come under my observation, and that of my colleague, Dr. Eshleman, in the Touro Out-patient Department in the past few years, have served to impress me with the necessity of including in the systematic routine physical examination certain points which, it seems to me, receive only very cursory attention.

It should go without saying that inspection of the chest should be thorough and complete, including every portion of the chest, the back as well as the front, and including a profile view, as well as a direct full-face one. The aneurism which presents a tumor as large as an egg or a fist, or larger, which has eroded its way through anterior or posterior chest wall, does not represent the average thoracic aneurism. Its incidence does not give a true idea of the frequency of the disease. It is only the far advanced case that presents the picture. And yet, even such a one may be missed.

Osler, in his entertaining and exhaustive article in *Modern Medicine,* modestly instances cases where even his keen and systematic observation failed to make a most obvious diagnosis on account of a lapse in his ordinary routine. "There is no disease," he says, "more conducive to clinical humility than aneurism of the aorta."

We are so accustomed to placing our stethoscope upon the chest wall at certain generally-accepted points that the auscultatory findings are less apt to be passed over than even those of inspection and palpation. It is not, however, every aneurism that presents a bruit, and, on the other hand, there are many bruits that must be explained upon some other basis. In many cases of supposed aortic regurgitation we shall find that we are dealing with true aortic

*Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

dilatations, and that the regurgitation is merely secondary to this. *Vice versa,* supposed aneurisms may prove to be only aortic regurgigations, with some degrec of aortic dilatation secondary to this.

Palpation also, valuable as it is, is likely to yield positive information only in far-advanced cases. Thoracic aneurisms in which thrills and pulsations are felt are likely to be those which have reached a large size and have made their way through the bony and soft parts of the chest wall and are approaching the surface.

To percussion, therefor, of all the usual methods of physical examinations I believe we must turn for the earliest and most exact data as to the presence and size of an aneurism of the thoracic aorta. It is because so little stress has been laid upon percussion, and so much attention paid to other physical signs, such as tumor, bruit, thrill, unequal pupils, unequal pulses, etc., that most diagnoses are made late. My plea is for not only a careful mapping out of the cardiac dulness, but also for a careful percussion of the area superior to the heart. Percussion should cover the sternum above the costochondral articulation and the first and second intercostal spaces on either side of the sternum. Dulness in these portions should make us consider the possibility, or even probability, of aneurism. It is true that dulness need not necessarily mean aneurism. It indicates merely abnormality in the mediastinum. What that abnormality may be, whether aneurism, neoplasm, glandular enlargement, mediastinitis, or mediastinal pleurisy, we have to turn to the other methods of diagnosis to determine. My point is that, unless the dulness is ascertained, the diagnosis of a change in the mediastinum will, in the majority of cases, be overlooked, and hence the diagnosis of an aneurism will not be even thought of.

Certainly, percussion will point the way to intrathoracic changes long before the latter can be actually made out by palpation. It is to be conceded that palpation is the more certain and exact of the two methods; one can always be more certain of what he can touch and feel than of that which he can only define by percussion. For example, the position of the lower border of the liver as made out by palpation is very much more exact than it is as made out by percussion. But percussion is a method that is susceptible of much more general application. For example, one cannot palpate the thoracic organs as one can sometimes palpate the liver and spleen—actually hold a part of these organs in the hand—but we can map

out approximately the limits of the various contents of the chest. I believe it makes a great difference how percussion is done. Light percussion, when properly performed, brings out to the ear and finger, trained by practice, points finer than are possible with the method of heavy or hard percussion. It is because we have approached every case with an open mind, and have considered the possibility of a mediastinal growth until disproven, just as we consider the possibility of an apical consolidation until disproven, that we think we have accumulated a series of cases which do not present the striking phenomena which make the late case so obvious. An illustration of what I mean is afforded by the following case, which I saw through the courtesy of Dr. J. B. Guthrie:

Z. C., white male, age 40 years, blacksmith, applied to Dr. Guthrie for physical examination prior to being accepted for a position in the Panama Canal Zone. Applicant was in apparent perfect health. Right pupil was larger than the left. No difference in the radial or temporal pulses. No precordial tumor, thrill nor pulsation. No murmur. No pain. No laryngeal nor esophageal symptoms. Substernal dulness, as shown by the following:

Dulness at first	intercostal space,	5	cm. to right	of middle line.
Dulness at first	intercostal space,	6	cm. to left	of middle line.
Dulness at second	intercostal space,	7	cm. to right	of middle line.
Dulness at second	intercostal space,	8	cm. to left	of middle line.
Dulness at third	intercostal space,	7½	cm. to right	of middle line.
Dulness at third	intercostal space,	9½	cm. to left	of middle line.
Dulness at fourth	intercostal space,	7½	cm. to right	of middle line.
Dulness at fourth	intercostal space,	11	cm. to left	of middle line.
Dulness at fifth	intercostal space,	6½	cm. to right	of middle line.
Dulness at fifth	intercostal space,	11½	cm. to right	of middle line.

Posteriorly an area of dulness on right of spine from third to seventh dorsal spinous processes. This dulness has its greatest width at level of the fifth dorsal spinous process, and tapers top and bottom.

This man evidently had a mediastinal growth, most probably an aneurism. Unfortunately, we were unable to fluorscope him or get a skiagraph.

Without the open mind and the firm resolve to look for every possible sort of trouble in every case, we might easily be led astray in such a case as the following:

Mary S., colored, female, aged 40 years, came to the Touro clinic March 5, 1912, complaining of pains in chest and back and shortness of breath. She had a marked inspiratory stridor, especially when lying on her back. Percussion showed:

Dulness in first	intercostal space,	3	cm. to right	of middle line.
Dulness in first	intercostal space,	6	cm. to left	of middle line.
Dulness in second	intercostal space,	4¼	cm. to right	of middle line.
Dulness in second	intercostal space,	6¾	cm. to left	of middle line.
Dulness in sixth	intercostal space,	13	cm. to left	of middle line.

The other measurements could not be taken on account of pendulous breast. Over the whole of the left lung the inspiration was louder and higher pitched than over the right lung. When patient was lying supine

a whistling râle was heard on inspiration, with particular intensity at the left border of the sternum in the second intercostal space. At the apex of the heart a systolic murmur was heard. Blood pressure in the left arm was 185; in the right arm, 200. There were no other signs of aneurism. A diagnosis was made of aneurism of the aorta pressing on the left bronchus. Skiagraph showed an enormous shadow on the left side of the vertebral column extending from the second intercostal space to the diaphragm. Fluorscope showed the shadow to be a cylindrical dilatation of the aorta.

The application of X-ray to diagnosis of chest conditions has been most valuable in the detection of mediastinal abnormalities. Without the X-ray, a majority of aneurism cases must go without a definite diagnosis. The best we might do would be a surmise. Of the two methods, fluorscopy and skiagraphy, the former is more important and valuable, for we can tell without a doubt that the pulsations are occurring in the aorta or in a sac directly connected therewith. Even from the immobile skiagraph, however, important conclusions can be drawn. The relative position of the abnormal shadow, its size and shape, give in many instances unmistakable evidence of an aneurism.

Another point in the diagnosis of this condition which has not received the recognition which it deserves is referred pain. Pain down the arm, one-sided (sometimes two-sided) neuralgia of the brachial plexus or of the intercostal nerves should make us think of intrathoracic pressure. A number of cases have been referred to our clinic from the neurological clinic of Dr. Van Wart, with the hint that we look for intrathoracic cause of extra-thoracic neuralgia. Such a case is that of

B. J. H., white male, aged 55 years, laborer, hard drinker, applied to Touro clinic, July 22, 1909, for relief of pain in legs. Beyond a arteriosclerosis nothing abnormal was noted. After several months' treatment he was relieved of these pains. One year later (June 30, 1910) he returned, complaining of terrific pains in the left arm, beginning at shoulder and extending down to hand. Pressure over brachial plexus, over the clavicle and along the nerve trunks in arm caused great pain. Dr. Van Wart, in consultation, suggested an intrathoracic cause for neuralgia. There were no evident symptoms of anuerism. Percussion outline was as follows:

First	intercostal space,	3½	cm. to right	of middle line.
First	intercostal space,	5½	cm. to left	of middle line.
Second	intercostal space,	4	cm. to right	of middle line.
Second	intercostal space,	4	cm. to left	of middle line.
Third	intercostal space,	4	cm. to right	of middle line.
Third	intercostal space,	8½	cm. to left	of middle line.
Fourth	intercostal space,	4	cm. to right	of middle line.
Fourth	intercostal space,	8¾	cm. to left	of middle line.
Fifth	intercostal space,	4	cm. to right	of middle line.
Fifth	intercostal space,	9¼	cm. to left	of middle line.

No dulness posteriorly. Skiagraph showed dilatation of descending arch of aorta. July 7, 1910, patient spat a little blood. September 24, 1910, dulness was found posteriorly, 6 cm. to the right of the vertebral column, extending from the first to the fourth dorsal spinous process.

I do not mean to minimize the importance of any classical signs and symptoms of aneurism. Difference and the size of the pupils, change in the quality of the voice due to laryngeal paresis, may first arouse our suspicions and direct us to the true site of the trouble. But we should not confine our systematic routine examination of the mediastinum merely to those cases presenting these suspicious symptoms or such other obvious phenomena as tumor, pulsations, enlarged veins of thoracic parietes, etc.

To summarize, therefore, I would suggest that:

I. Thoracic aneurism is much more common than usually thought. By learning to look, we shall learn to find.

II. Percussion of the space at the base of the heart should be included in the routine percussion of the heart outlines.

III. Percussion is, of all methods of physical examination, the one that gives the earliest information of the mediastinal changes.

IV. Flourscopy and skiagraphy should be practiced in all cases showing suspicious phenomena.

V. Pains in precordial region, intercostal neuralgia and arm pains should cause us to examine most carefully the mediastinum. The pains may be referred pains (areas of head). The neuralgias may be pressure nenuralgias.

Discussion on Dr. Lemann's Paper.

Dr. J. B. Guthrie, New Orleans: I have had the opportunity of studying with Dr. Lemann many of these cases of aneurism of the aorta. I do not know of any clinic where there is a larger material than in the medical clinic of Dr. Lemann at the Touro. If is were possible to X-ray every case of suspected aneurism, or every medical case that comes to us, it would be worth while, but under present organization such a thing is absolutely impossible. There is no question as to the value of the X-ray in diagnosing aneurisms of the aorta and mediastinal growths, but we cannot X-ray every case. What we can do is to investigate that space lying above the heart and on each side of the median line. There is nothing in a routine examination of the thoracic viscera that is of more importance than percussing downward toward the median line, beginning well out into the side of the first intercostal space and the spaces lying between the clavicle and first rib, and the space lying between the first and second ribs down to the sternal border. The matter of percussing heart borders has long been a

matter of routine on the part of those who make careful physical examinations, but I do believe the upper portion, the base of the heart, the region corresponding to the upper part of the mediastinum is frequently neglected. Unless we make this a matter of routine in our physical examination we are not able to select the cases which require further investigation by means of the X-ray. Negative results will be obtained unless lightest possible percussion is used.

DR. J. E. LANDRY, New Orleans: As Dr. Lemann has well said, in the diagnosis of aneurism the mistake is made in not looking for it, rather than not knowing. Being associated with Dr. Lemann in the Charity Hospital, we run across a good many cases of aneurism, by careful examination—that is, percussion of the outer borders of the heart from the top to bottom, as Dr. Guthrie has just said. Starting out under the clavicle in the first interspace and percussing lightly, one can easily find out if there is any enlargement of the great vessels.

Another point Dr. Lemann has brought out is the percussion of the back over the vertebræ, from the first to the fourth or fifth. If we find a dulness or flatness we should suspect aneurism at once; this should be part of the routine of all cardiac examination. I think every case of heart trouble should be suspected as that of aneurism, just the same as every case of fever should be suspected as that of typhoid until proven otherwise. I think aneurism is more frequently present than the average medical man thinks. With a systematic examination of the chest one will find it almost every time if it is there.

Furunculosis and The Rational Treatment.*

By JOHN L. KELLY, M. D., Melrose, La.

A furuncle defined by our eminent surgeon, Da Costa, is an acute and circumscribed inflammation of the deep layer of the true skin and subcutaneous tissue following bacterial infection of a hair follicle or subcutaneous gland.

The exciting cause being generally the staphyloccocus aureus, these bacteria burrow down into the subcutaneous tissue and set up an inflammatory condition known as an active hyperemia, causing an engorged condition of the bloodvessels, from which the leucocytes transmigrate and the plasma and serum exude into the surrounding

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tissue, causing a tumor, which at first is very hard and painful to the touch. This tumefaction continues for some four or five days, getting larger and more painful. All the lymph nodes in that section become acutely hypertrophied, this condition producing a septicemia, bringing on fever and a general malaise. At about the fifth day the hair follicle and the sebaceous gland begin to ulcerate and a liquefaction necrosis sets in. Liquefaction sets in at a more rapid gait and the tumor from being hard begins to soften in the center, and while it may be easily fluctuated, it still remains extremely painful and sore. If this condition is not treated, in about eight days, the furuncle bursts around the center and there escapes a sero-pus, which gives the patient relief, and a false impression that he will not have to consult a physician, especially when the core, a long white slough, is expelled or pulled out by one of his acquaintances. This slough is the hair follicle sebaceous gland with dead leucocytes and bacteria. The cause of furuncle is generally, I should say in 85 per cent, from the violation of simple hygiene and in those who do not have a sufficient amount of nourishing food. The predisposing causes are diabetes and other constitutional diseases. Generally the patients who have come under my observation are a little under weight and very poorly nourished, and as a rule have become careless with the surface of their body, but I have seen two cases in patients that were well nourished, lived under fine sanitary surroundings and were scruplously clean about their body. I was taught to examine every patient's urine for sugar, who presented himself for treatment for boils, but so far I have been unsuccessful in finding the sugar.

The prophylactic treatment requires attention of the patient's surroundings, and especially attention to hygiene of the skin. Proper nutrition can be maintained by a well regulated ration taken at regular intervals and well masticated; the bowels should be kept freely open so as to eliminate all intestinal toxins. Patients should be instructed to take a bath each night on retiring, and also to change underwear regularly. As a furuncle is most generally confined to the neck they should be instructed to shave the neck or have the hair clipped so as to keep surface free from contamination.

The treatment of the furuncle itself depends as to the stage of its formation. First the stage of formation; second, the stage of ulceration and necrosis, and third, the stage of resolution. When

seen early in the stage of formation, the furuncle may be aborted in the following manner: Take a match and whittle to a fine point; dip into liquid carbolic acid, and shake off the excess, then bore the point of the match stick firmly and deeply into the middle of the furuncle and then withdraw it. By this process you have produced a white eschar, aseptic because the active bacteria have been destroyed. There is no pain, for it is relieved immediately by the anesthetic action of the phenol. When seen late, the common practice is to freely incise, I don't think this is a good plan for it has to go through its several stages of development as the furuncle is a self limiting process. It is only an assembly of leucocytes and serum waging war on the bacteria, and by incising you interfere with the defense that is being waged on nature, and you do not shorten the process, but tend to set back the work of nature and leave patient with a bad looking scar. Given a furuncle late in the first stage it seems to be the best practice to assist nature by establishing an outlet for the process of necrosis. This can readily be done by taking a short scalpel; lift off the central vesicle, exposing the hair follicle and the sebaceous gland. Authorities disagree as to the next procedure; some advise the use of the Bier cup to draw out the exhausted serum and blood, but I am opposed to that for it produces some traumatism, just as squeezing does, and as this condition is going on through to resolution. why interfere with nature?

I advise that the furuncle be dressed with a piece of plain sterile gauze wrung out of a normal saline with one per cent sodium citrate. The sodium chlorid by osmosis set up a flow of lymph through the walls of the furuncle and the citrate of sodium maintains a fluidity of the serum. I use sodium citrate for two or three days. To prevent pustulation, I apply an ointment of oxid of zinc around the base of the furuncle. I also use sodium citrate, grains 15, in a glass of water after each meal for its alkaline action on the blood and its diuretic effect on the kidneys. I also put the patient on iron. quinin and strychnin as a general tonic. I continue the wet dressing of normal saline every four hours until the slough is loose, when I remove it with a pair of small dressing forceps, I then clean this cavity with peroxid of hydrogen and aftewards apply dressings of plain sterile gauze, sometimes using aristol as an antiseptic, drying powder.

Discussion on Dr. Kelly's Paper.

Dr. I. M. Callaway, Shreveport: In reference to the treatment of staphylococcic infection, I have had some experience with vaccination. Of course, the local treatment of the inflammatory process, as brought out by the doctor, is well taken, but as I understand, staphylococcic infection is a blood infection, and that vaccination by staphylococcic vaccin, prepared by some of the pharmaceutical houses, is followed by good results. I remember one case that did not yield to the staphylococcic vaccin, because, I think, I did not have the right strain. A vaccin was made from the individual patient, and given with good results.

Dr. A. C. King, New Orleans: The use of auto-vaccins is better than stock vaccins, but recently the pharmaceutical houses are putting up a mixed vaccin which is, in the opinion of those who are using it, better than any single vaccin.

In regard to the application of Bier cups to boils, I would disagree with Dr. Kelly, for the reason that he speaks of traumatism being done. It depends upon how the Bier cup is used. If the suction is too great, you do harm by the traumatism; but gentle and moderate suction does good rather than harm, and if the doctor will not produce too violent suction, his results will be more favorable.

Dr. William M. Perkins, New Orleans: Dr. King's experience with the Bier cup coincides with my own. There has been quite a little Bier treatment carried out by using testtubes. For instance, using a test tube while it is still hot, after burning in it, and slipping the tube over the furuncle, or abscess. Owing to the length of the testtube, the large space in which a partial vacuum is formed in comparison with the small area dealt with produces a suction which traumatizes. The application of the Bier cup by any mechanical means, such as a rubber bulb, may traumatize unless judgment is used.

Some cases do badly after the application of the Bier cup. It does not seem to suit them. In a case that responds to it, it does a lot of good. I believe an incision with a small bladed knife is indicated in some cases in addition to the application of the Bier cup. I believe the making of a small puncture to the depths of the cavity is a good plan, followed by the retaining of a small double layer of gauze to the bottom. I sometimes paint the surrounding

region of the skin with tincture of iodin and apply the iodin to the depths of the wound also; in the case of small furuncles it aborts them.

Along the line of prophylaxis, one of the things that is occasionally forgotten is that the patient will smear pus over the surrounding skin and scatter infection into the other hair follicles and glands, and I believe in a great many of our cases we have crops of furuncles scattered broadcast. No doubt, an autogenous vaccin is the surest thing to use when it is practicable, but there are many cases where an autogenous vaccin is not readily available to the surgeon because of the patient's pocket book, and because of other things, so that stock vaccins, and especially mixed vaccins, may have a place. We must avoid relying on staphylococcic vaccins on the theory that all of our furuncles are staphylococcic, because the difference in strain makes quite an element of chance there.

Hospital Management.*

By GEORGE S. BEL, M. D., New Orleans.

It is not the object of this paper to take up many of the subjects that have to deal with the successful management of a general hospital, but there are a few incidental questions which, perhaps, have not often been discussed before this society that I would like to go into with more or less detail as each may need.

In themselves, they are disjointed subjects, but they lead up, in my mind, to the consideration of one subject, the Charity Hospital of New Orleans as compared with similar institutions elsewhere. I could add a great many of these few that are considered, and, perhaps, have given greater thought to selecting the few topics. I will not in the least feel hurt or quarrel with anyone who thinks he could have selected better ones.

So much has been written and said on this subject that my paper must consist of familiar facts which I can only enhance by my observations and study as a member of the Board of Administrators of the Charity Hospital of New Orleans, and in other hospitals of the United States, Canada and Europe, and as a member of the American Hospital Association.

The problems involved in hospital management are multitudinous;

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their proper consideration, therefore, is bound to lead our study into diverse fields of knowledge, many of them reaching far beyond the sphere of the average hospital superintendent's daily thought. We must learn how best to apply to our work the principles of medicine, surgery, sanitation, public and personal hygiene, of hospital and district nursing and nursing education, of social economics, ethics, law and finance, of business administration and domestic administration, of engineering and architecture. But all of this knowledge, which is to afford us the means to grapple with various and complex problems of hospital administration, lies within our reach—although, in order to acquire it, we must abandon the doctrine and foolish idea of the superintendent's self-sufficiency, self-importance, know it all and call to our aid all who are able to serve our ends.

That the trustees or administrators of every hospital should be the governing body. They are the fountain of all authority. To them are committed the custody of the funds, the establishment of rules for the management of the institution and the appointment of all employees and officers, professional, executive and all others, including the superintendent. Hospital administrators are finding a constantly increasing field for their activities. They should visit other hospitals, observe methods elsewhere, consult with their visiting staff or conference committee of same so as to benefit by their expert knowledge. They should be familiar with hospital literature, rendering them more formidable, increasing their armamentarium of ability and usefulness, consequently arriving at correct conclusions by intelligent interpretation of the various hospital subjects.

The Superintendent Himself.—It may be considered one of the most important functions of the administrators of a hospital to select a man to represent them. In selecting a superintendent, most frequently, the administrators seek for a person who knows how to do the various branches of work in the institution, or knows how they should be done—at least is familiar with them. To my mind, he may know how to do the purchasing efficiently, to run the laundry correctly, to do the nursing well, and even be a skillful surgeon and an accurate diagnostician and yet be a failure as regards running a general hospital.

There is no requisite more important in a superintendent than that of judging people correctly in regard to their ability to do the work for which he employs them, in regard to their characteristic

to deal with the people under them. If he has not the judgment to select them, or has not the ability to instruct them in their duties so that they perform them in his particular way, he has not the first and most important requisite for a superintendent of an institution.

There needs to be a good feeling between the superintendent and his subordinates so they will come to him freely with their difficulties. It is as essential to compliment their good points as to criticise their bad ones and it is very important not to criticise them severely for small and unimportant failures. There are those under him who need to be stimulated by a harsh word to bring out their best work; there are those under him that mildest criticism over stimulates, and it is his duty to know when and upon whom to use the various methods at his command. Collect people about you who really wish to help.

Such chief executive officer, generally known as a superintendent and in our Charity Hospital known as a "house surgeon," must consequently be responsible to the board of administrators for the welfare of the hospital and before the public. He has intimate relations with the medical staff, both visiting and resident, must know that they perform their duties faithfully, punctually and efficiently.

He has equally close relations with the economic staff and must know that the housekeeping, laundry, kitchen and other functions of a hospital are faithfully and efficiently performed.

He must know about the nursing, out patient service, the purchase of food, clothing, fuel and supplies.

The superintendent or chief executive officer, who does not feel the necessity or desire to visit other hospitals, to observe methods elsewhere, is doomed to stagnation and has an imperfect conception of his duty. He may profit much by interchange of ideas and by comparison of methods and results.

In an institution of the magnitude and importance of the Charity Hospital of New Orleans, the superintendent or house surgeon has too much responsibility to engage in private practice, and should give his entire time to the hospital. In many of the hospitals, the chief executive officer has no medical duties. The superintendent or chief executive officer should be given large powers and responsibilities and should be upheld by the administrators or trustees when he is in the right and held to a strict account when he is in the wrong.

Finally, to the whole personnel of the hospital, he should be a living example of a man who uses calm judgment and never prejudice.

Visiting Staff.—The experience and knowledge of the visiting staff should be utilized by the administrators or trustees and they cannot afford to deprive themselves of the valuable information which could only add to the efficiency of the hospital and its prestige.

The more highly specialized and technical the work, the more necessary it is to have expert advice from such skilful and experienced a source.

The visiting staff should have complete charge, under the rules of the board of administrators or trustees, of the medical and surgical services, conducting them under modern methods and should mutually arrange that all of the patients should at all times have proper professional care.

The board should welcome and invite the active co-operation of the visiting staff. It needs their support and assistance, and as the members of the visiting staff bring to the service, in which they are connected, valuable counsel and conservative guidance that result from large experience and wide research.

Every hospital administrator, trustee and superintendent, if he has had any experience whatever in hospital management, knows if he has not grown in that unfortunate narrow-minded path of self-sufficiency, self-importance, that a most important factor entering into efficiency of a hospital in no uncertain degree is its visiting staff. The organization of the medical staff is of great importance and immense significance.

Dental Work.—It is a matter of surprise and regret that we have for so long neglected dental work as a feature of the hospital work. There is never a time that there are not patients in the hospital whose teeth are badly in need of attention. As a matter of fact, this might be considered far more important than some conditions treated. Many hospitals have dentists on the visiting staff and many now have dental departments.

Another phase of hospital work, which is one of the most important of any new development, is the Social Service Work.

Hospitals have long treated the individual with no regard to the conditions of the home which he has left, which might be responsible for his mental unrest while in the hospital; have discharged him

with equal lack of knowledge as to where he was to go. The fact that he had no home or place to which he might go has not infrequently meant that on account of poor surroundings, lack of attention, or being forced to work too soon, he re-entered the hospital after discharge and the same process was repeated.

The social service department learns if that man has left a sick wife or child at home and if so, sees that proper measures are taken to correct conditions; if charity is needed, that the organized charity appropriate to the case is notified. It ascertains if the man has a place to go on leaving the hospital where he may continue his convalescence, if necessary, and obtain a place for him if such is needed. The social service department reaches the individual in those important points to which the hospital has hitherto paid no attention. This department should form the connecting link between the hospital and the charity organization—it should not go beyond that.

Hospital social service is simply common sense applied to getting patients well. If a sick man needs only milk, eggs and fresh air; if a woman with varicose veins needs elastic stockings to help her; if the typhoid patient needs convalescent care to save a relapse, then does not common sense say: for their own sake to save them from chronic invalidism; for the physician's sake, that his gift of time and skill may not altogether be futile; for the hospital's sake, that its money for treatment and expert service may not be absolutely wasted; and finally, for the community's sake, that it may be protected from the contagion of disease, and that as many of its members as possible be kept in a condition of industrial efficiency instead of dependency—then does not common sense say that there should be supplied the link between the patient and the possible resources that will make the doctor's advice feasible and the hospital's care effective? Such a link is the hospital service worker, or possibly better named, "Hospital Extension Work."

The economical use of supplies is quite as important as the buying. In most hospitals, there is still something to be done in the way of more careful and systematic inspection. Many hospitals have adopted the system of saving the gauze from dressings, operations, etc., carefully washing, sorting and sterilizing same, and finally preparing it for further use. This proceduce resulted in saving three thousand dollars in eight months in one hospital. The same careful methods should be applied to the use of medical and surgical supplies, anaesthetics, alcohol, etc. If careful records are

kept of the number of towels, the amount of gauze, yards of bandage, grams of ether, etc., used by different departments for the same class of cases—by different surgeons for the same class of operations, it will be found that there is too great a difference to account for in any other way than by careless methods.

In the matter of anesthesia, there is a great waste by incompetent anesthetists. There should be a salaried instructor in anesthesia, not only to insure due economy in the use of anesthetics, but to teach the intern how to administer with the best result at the time and least discomfort to the patient.

In a short paper such as this, it is impossible to do justice to a subject of such magnitude; so many excellent features present themselves that it is hard to make a selection.

Volumes could be written on system, modern methods, perfect appointments and other things pertaining to a hospital, but we will now compare the Charity Hospital of New Orleans with similar institutions elsewhere.

The Charity Hospital of New Orleans has a board of administrators, whose administrative ability is magnificiently performed from the economical, financial and domestic standpoint, but they are not enthusiastic in the lines of medical and surgical advance. They may be interested, but enthusiastic is the term which cannot be employed. Why, they do not even invite counsel nor seek information from the visiting staff! This antiquated system, which has grown obsolete and outlived its usefulness, should be replaced by reorganization of the medical and surgical services, introducing modern system and methods, thereby placing the Charity Hospital in a class with institutions of its kind elsewhere.

The visiting staff of the Charity Hospital of New Orleans shall visit their wards every morning and prescribe at any hour not later than eleven a. m. Gentlemen, can you imagine such an ancient rule as this existing in a modern hospital? Why, it is appalling to think a member of the visiting staff cannot visit a patient who is seriously ill during the afternoon or evening.

The Charity Hospital has no superintendent, but its chief executive officer is termed a house surgeon. This house surgeon is permitted to engage in active practice outside, in private families and other institutions. His two assistants do likewise. The house surgeon or superintendent in other institutions of the size of the Charity Hospital of New Orleans is not allowed to practice outside of the

hospital and has no medical duties. His assistants shall assist in the management of the hospital, and in performing all duties, shall be under the superintendent or house surgeon, and they shall act as admitting physicians. At present, the admitting of patients and classifying of cases in the Charity Hospital is conducted by a layman, the clerk, which is entirely wrong.

Interns.—It is gratifying to learn that recent changes have been instituted by which the old system of under-graduate interns has been changed to one of graduates. This idea has been advocated by me on several occasions previously, but for some reason it was not adopted.

Our Charity Hospital is a large one, and the respect which it commands is such as to indicate that it possesses a great deal of merit. Nevertheless, without in the least belittling the present value of the Charity Hospital, we may reasonably cherish the hope that as time passes, the organization and system will find the means for its further improvement.

Discussion of Dr. Bel's Paper.

Dr. B. A. Ledbetter, New Orleans: I should like to ask Dr. Bel two questions: first, in your opinion, what would be the proper changes that would make at the present time for the good of the institution? Second, did you try to aid the conference committee with the visiting staff in getting representation before the board?

Dr. L. R. DeBuys, New Orleans: As I understand it, at one time it was decided the board would allow the conference committee of the visiting staff to attend the meetings of the medical board. I would like to know why that decision was revoked as it was later?

Another thing: Dr. Bel states that he recommended the grading system of internship. I would like to know whether that was not accomplished during his time on the board?

There is something else I would like to know, and that is, why dry sweeping is still continued in the Charity Hospital.

Dr. M. W. Swords, New Orleans: I think Dr. Bel's paper is timely and excellent. I have recently visited other institutions throughout the country, and I find, after investigating their methods of operating modern hospitals, that the method now in existence in the Charity Hospital is by far inferior to the methods employed in other great hospitals throughout the United States. I have not visited them all, but only a few, but of those I visited I found they

had a system, and it takes system, no matter what the business may be, whether it is commercial, hospital or otherwise, to achieve and maintain success. In the hospitals throughout the East you will find a superintendent at the head of the hospital. He constitutes the sole figure as far as responsibility is concerned. That man is responsible for every little detail. He does no outside practice. His duties are restricted to the confines of the hospital of which he has charge. His duty is to see that every little detail is carried out in every particular. If there is any irregularity existing within the confines of that institution, it is his duty to report such irregularity to the board of administrators and to the visiting staff of that institution, who constitute a part of the board. The Charity Hospital visiting staff, of which I am a member in a minute way, is deserving of every praise imaginable. I do not know whether it is due to the fact that the donations of the city and State are not adequate to carry on this hospital in a systematic way or not, or whether it is due to the manner in which it is managed. But I do say, unhesitatingly, that as far as the management of this institution is concerned, as compared with the institutions in the East, it is very far inferior. In the Eastern hospitals, Mr. President, you have, as you walk into each and every hospital, a history room. There you will find ladies and a superintendent in attendance. As you walk into that room you will find that the patient gives his name; the number of the history is on a card, and that history is not given to the patient, but is sent down to the ward or to the service to which the case has been referred, with an absolutely complete history of the case, so that the physician in attendance knows just exactly what he is to see. They usually have to send these histories down to the man who is in attendance so that he can put his name on them. For instance, if Dr. Johnson or Dr. Henry gets that history to-day, he gets the case to-morrow, and it is his case. He cares for it. In this institution you do not find that exists. I know very well the institution in which I took my post-graduate course is practically, you may say, an institution for post-graduates, but the system of managing that hospital from the patients to the inner workings of the institution is absolutely complete. Furthermore, I want to say that there exists in the institutions I have visited, so far as I could learn, perfect peace, quietude and harmony between the visiting staff and the officers of the institution which, I am ashamed to say, I do not think exists between

the institution and the visiting staff of the Charity Hospital. Gentlemen, you are familiar with the old saying that "a house divided against itself cannot stand," and until we have perfect unity and harmony between the institution and the administrators, who are responsible for the conduct of the institution, we cannot expect to attain a high state of perfection.

Dr. William M. Perkins, New Orleans: Some years ago while I was president of the Charity Hospital Alumni Association, a committee was appointed to make a comparative investigation of hospital conditions in large cities. Dr. Lemann, who was chairman, did the bulk of the work and the committee got up a most complete report, based on correspondence with hospitals in the other great centers all over the United States. We reported in detail and also presented a summary of our findings. A copy of our report was sent to each member of the Hospital Board. At that time, there were two hospitals in the United States that were running on the very antiquated system we are pursuing down here, but one of them has since quit! We have not! We have been accustomed for years to speak of the glories of the Charity Hospital; that is because it was our hospital. We felt that way about it, but it was largely because we did not know how other hospitals were conducted. We know ours is not conducted in a way conducive to the welfare of the patient and to the progress of medical education, let alone the question of consideration of the visiting staff. The hospital is held up as an institution that does great work, and the visiting staff is given scant credit.

The work is by some supposed to be carried on by the interns and the house surgeon. There are three house surgeons who are called upon to take charge of all emergency work, at all times, including all operations that do not fall between eight and eleven o'clock a. m., and a good many that do fall between eight and eleven, while the visiting staff men are very often finding the wards filled with cases that have been given operative attention. Frequently the afternoon is filled by operations to be performed by the house staff, on appendicitis cases, etc., which have occurred in the medical wards of the institution. There is no such a thing as a member of the visiting staff settling a diagnosis or establishing the prognosis and mapping out treatment for any case without being subject to revision by the house staff, and yet some of the members of the visitng staff have been teaching medicine and surgery for many

years. The house staff changes from time to time. Whenever the governor and board make the appointments, the house staff is thereby clothed with privileges and with all the wisdom to make a diagnosis and conduct treatment, and no visiting surgeon has enough experience or has given enough time to study or seemingly has enough brains to know more when it comes to an ultimate decision than a member of the house staff. Moreover, very often an interne, who has gotten his appointment on the first of April, is able in August to hand information out to the visiting physician as to what is the proper dose of digitalis.

Let me cite a little incident to give you some idea of the relative position of an intern who has been in the Charity Hospital for a short time and a man who has been a visiting surgeon to that institution for ten years. In a case in ward 10 the medical student diagnosed one thing, and I diagnosed another. I operated and confirmed my diagnosis. Later I found a ticket in the office, with my name signed to it, and it bore the student's diagnosis.

I want to say this, however, that some of the students who fight us to-day are our friends after they have graduated.

Dr. H. D. King, New Orleans: There is one phase of this subject that I desire to refer to, and that is a lack of co-operation exisiting between the various departments of the hospital, the department of bacteriology and pathology for one. In the out-door medical service we must regard the department of bacteriology and pathology as very important to the internist, particularly with reference to the results that can be obtained from the department of bacteriology and pathology.

Another question is with reference to the X-ray department. It has been my experience, as a member of the visiting staff, to have patients referred to that department for a confirmation of diagnosis, only to have them returned day after day and say that the machine was broken. This thing should not obtain in a city of 370,000 people, and in an institution of 1,200 to 1,300 beds.

Dr. Bel has failed to say anything about the most important adjunct of a modern hospital, and that is the nursing school. I do not know whether Dr. Bel had in mind to say something about the nursing school or not, but it is a very necessary adjunct to every modern hospital and should be touched on.

As I see it, there is a lack of co-operation existing between the visiting staff and other members of the institution, and especially

the medical men, who want to have their diagnosis confirmed in a scientific manner beyond all doubt.

Dr. Isaac Ivan Lemann, New Orleans: I want to say, the men who worked with me on that committee in gathering statistics of other hospitals and the details of the management of other hospitals devoted considerable time and attention to that work. The Alumni Association of the Charity Hospital, to which reference has been made, devoted consideration and money in getting the report printed. The report was couched in most respectful terms. By resolution it was adopted by the association, and a copy of the report was sent to each individual member of the board of administrators, but no reply has ever been received so far as I have been able to find out, and I think the association spent considerable time and took pains to find out. But no reply has been received from the board of administrators in regard to that report.

The board could not plead it was ignorant of the state of affairs as regards the contrast in the management of this hospital with that of other hospitals.

A question I wish to put to Dr. Bel is the reason why no reply has been received by the alumni of the institution who were for the most part members of the visiting staff.

Dr. F. T. Brown, New Orleans: I would like to ask Dr. Bel if there is any law existing governing social conditions?

Dr. George S. Bel, New Orleans (closing): Dr. Ledbetter has asked the question what would be the proper changes that would make for the good of the institution at the present time. Gentlemen, it would take considerable time to answer that question in detail, but I will be very brief. First, I believe, in all institutions we should go right to the top, the executive board, *first*. The board of administrators of a hospital should be a body of men who are thoroughly conversant with hospital subjects; who should visit other institutions, and see what they are doing. They should investigate their methods, familiarize themselves with the various systems in vogue, and above all, with regard to hospital literature. Remember, hospital literature is very valuable, exceedingly practical, and highly educational. If a man is a financier, he is not going to trust his business to his engineer, nor to his servant, nor to his clerks, but he is going to go around. The executive board of administrators or trustees should begin right at the top.

In the second place, let us have the visiting staff put in entire

charge of medical and surgical services of the Charity Hospital. Let us invite their co-operation, their assistance, and scientific knowledge. There could not be a greater improvement in that regard.

The next step is the inauguration of a new system, with an executive officer at the head, whether he be a surgeon, a superintendent, or a warden, that makes no difference. It is the system which he is going to adopt. Let us have a man at the head of the institution who will devote himself exclusively to administrative affairs. We want a man at the head of the institution who, when we go into it can be found, and when we want information we can get it. We do not want to have an individual at the head of an institution of the magnitude of that kind who, when we want him, is operating somewhere else, or is in consultation in a case, or is treating a case of measles. We want an administrative officer who is thoroughly competent to carry on the executive work, and when I make that statement I do so very emphatically, but I do not want to be understood as alluding to any particular house surgeon, to anybody who fills a position in the institution at this time, but it is the system that is bad. The present house officer and previous house officers have rendered incalculable and a great amount of valuable service to the community. But I say, put a system in there and get a board who will do things for you. If we could get that we would elevate the standing of the institution. If an intern is going to hold an internship he might as well be an undergraduate as a graduate. Put him on an equal footing with the resident staff; promote him to a higher position for his efficiency and scientific ability, and not have him under the present status, a plan which keeps away a great many good interns.

Dr. Ledbetter asked whether I tried to aid the conference committee with the visiting staff in getting representation before the board. Certainly, and most assuredly, I did. I did everything in my power to have this done. I begged of my board to allow us to consult and to get the co-operation from such a highly scientific body, whose members did the great bulk of this work. I fought for it, and I would again fight for it. The only time a member of the conference committee ever sat in a meeting of the medical committee during my time was by my personal invitation, not because the members of my committee invited them. They did not want me to invite them. That was perfectly plain.

Dr. DeBuys asked the question, Why did not the board of administrators allow the conference committee to meet the medical committee? Well, the conference committee did apply to the board for representation. That was brought before the board and the matter was thoroughly threshed over. It was passed. I was delighted and elated that a great burden had been lifted off of my shoulders, and that I could have a scientific body of men to cooperate with me. At another meeting of the board it was thought to be illegal. One of our members, who seems to have fallen by the way, made that statement. Mr. Farrar, the attorney for the board, wrote us a lengthy document that members of the board could read, and he said it was absolutely within the right and jurisdiction of the board of administrators to invite a conference from the visiting staff. He did not say we should adopt what they wanted, or to follow the rules and regulations they wanted.

With reference to dry sweeping, which is a characteristic feature of the institution, it ought to be stopped. I had a rule passed in that board prohibiting dry sweeping, but it was only enforced for a short time. Why that rule is not enforced I do not know. Dry sweeping in such an institution must necessarily be injurious to the health of the inmates. With all due respect to those in charge, it is a lack or neglect of administrative ability on the part of the chief executive not to put a stop to it. If the chief executive officer should say, You must stop dry sweeping, that would undoubtedly be the last of it.

With regard to graduate internship, when I brought up the question of interns some objection was made by the chief executive officer, who thought there was a misunderstanding about the interns. That was dropped, with all due respect to the executive officer. I admit he was absolutely right. For the next year I made a motion that all applications for interns in the Charity Hospital, New Orleans, shall be graduates of a recognized medical college, said college to be a member of the American Medical College Association. That motion was seconded by a certain member, but the other two members of the medical committee objected. Another individual, through a lack of courtesy or what not, I do not know, whispered in the presiding officer's ear, and he withdrew his motion. Can you picture any such thing going on in the Charity Hospital like that? And what happened? It was voted down. The whole medical committee and the ex-officio chairman voted against me.

Dr. Perkins made a remark to-night that ran through me. He said that the chief engineer received more recognition than members of the visiting staff. I agree with the doctor in that respect, because the engineer, when I was on the board, had a whole lot to say, but there never was a member of the visiting staff there, whose suggestion had any weight.

Dr. Swords mentioned a comparison between the Charity Hospital and similar institutions elsewhere, and he compared it with the institution in which he had taken his post-graduate course. If I remember rightly, it was the Johns Hopkins. There is no use in comparing a man like Hurd, who was one of the greatest and best superintendents that any hospital in this country had ever had, with others. He has done more as a hospital superintendent than any man outside of George Rohe, of the Boston City Hospital. They are the fathers of modern hospital administration, and it is no wonder that Dr. Swords finds a lack of system in connection with the Charity Hospital as compared with that existing in the other institutions which he visited.

Dr. King said there was a lack of co-operation existing between the departments. I want to say to you, I did not ignore this condition. I should be here until to-morrow if I were to give in detail a plan of how to manage a hospital successfully; but I am going to answer some of the points or questions that have been brought out with reference to the lack of co-operation between the departments.

I tried to establish a pathology intern system. I recommended it; it is still on paper. I tried to invite a commission on pellagra for its investigation, with representatives from North Carolina, Georgia, Alabama, etc., so that we could discuss the etiology, treatment and prevention of this disease, but what happened? It is still on paper; nothing was done.

In speaking of the X-ray department Dr. King said it was frequently out of order. It has got to be a standing joke. Why is it out of order? Because the right kind of men are not always there to use the instruments. If an expert manipulated the instrument it would be far less expensive. Gentlemen, you cannot run a hospital without an executive head who is "Johnny on the spot" and has good workers under him all the time.

As to nurses accompanying the visiting doctors, if you will look over the rules and regulations governing nurses, you will find it is

stated that the nurse shall accompany the visiting physician or surgeon in his rounds throughout the wards. That was passed, but was it enforced? Never. Nine out of ten nurses would not follow the rule. Why is that? What permits it? If we had gone to a chief executive, who attended to hospital administration solely, he would not have tolerated this, but the chief executive in this case has so many irons in the fire, and how can you get anybody to serve two masters? With a hospital superintendent, this order of things could be changed in less than sixty days.

With regard to social service, I did not quite interpret what Dr. Brown meant by that, but there are rules and regulations governing what the doctor said.

Now, gentlemen, what we want is an intelligent administrative board. From a medical and surgical standpoint, the staff connected with the institution is all right, but its members are restricted in their dealings with patients. Things ought to be so arranged that any member of the visiting staff or physicians and surgeons can take charge of a case at any time, day or night, whether it is nine o'clock at night or one o'clock in the morning. Let the physician be responsible for the medical case. Let the interns be directed by the visiting man who knows his business. The executive officer of such an institution like the Charity Hospital should not be writing prescriptions and performing operations, and rendering service to patients in the wards. We must have an executive officer who is not a house surgeon. That is an absolute necessity. You cannot do without it.

I thank you, gentlemen of the Louisiana State Medical Society, both individually and collectively, for your kindness, and for your thoughtful and independent discussion on this question, and I sincerely hope before long we shall have a modern system of management in our great Charity Hospital, a thing, I am sure, we all look forward to with pleasurable anticipation.

A Few Diagnostic Points in Genito-Urinary Diseases.*

By DRS. M. M. SWORDS and HENRY F. ADER.

In presenting this paper for your consideration, the topic of which deals with a few diagnostic and general suggestions of genito-urinary diseases, we wish to state that we have nothing new to offer on the subject, but will endeavor to enumerate some facts and suggestions which we sincerely hope will be of interest and value to the general practitioner of medicine. It is not our intention to delve too decply into the conditions and diseases of the genito-urinary tract, but only to offer a few remarks on each of what we consider the primary essentials that should be known and recognized, giving you as briefly as possible our experience in this very broad and scientific field of medicine, without rehashing or attempting to burden you with details of a subject about which much has been written, copied and rewritten.

Among the first considerations in the primary examination of your patient is intelligent, painstaking interrogation. This not only assists you in gaining the history of the onset, symptoms and conditions of an existing malady, but is the greatest asset at your command in obtaining, first of all, the confidence of your patient. That confidence is of paramount importance, and cannot be too highly estimated; especially is this true in as far as the genito-urinary clinician is interested. For, remember, your patient may have come to take up his abode with you for quite some time. (This is especially true of gonorrheics, and it will require all the skill, patience and tact at your command to have him remain until cured or be otherwise discharged.) History also affords you the opportunity to judge the diseases to which your patient is most liable; habits and environments likewise. The family history should be noted as to tuberculosis, malignancy, rheumatism and gouty affections, as they are the diseases in which hereditary predisposition plays such an important rôle, and will ofttimes be of good reasons for suspecting certain diseases of which these maladies formed a formidable background. Information about maladies of which near relatives have died is of value, often denoting hereditary characteristics.

Special Interrogation.—Relating of symptoms in detail by intelligent, observing patients is often of value, for, in certain conditions,

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apparent unimportant symptoms to the casual observer would, on the other hand, to the specialist, prove pathognomonic of a specific disease. Detailing of symptoms is not always reliable, consequently cannot be depended upon, and must be corroborated by other findings.

The cardinal points for consideration are: the urine, frequency and urgency (whether night, day, or both), the changes in the stream, presence or absence of pain preceding, during, or after urination; admixture of blood with the urine, whether constant, primary, or terminal in character; the effect of rest and exercise regarding hematuria; cloudy urine, pus and other substances. These forming the basis of this paper, we shall now proceed to consider each of these conditions separately.

Frequency.—A healthy male urinates five or six times in twenty-four hours (subject to individual variations). The amount passed averages about forty-five ounces, and the average capacity of the bladder may be given as ten ounces. Observation shows that a large number of diseases of the genito-urinary tract are accompanied with frequent urination. Distinction must be drawn between diseases which increase and those which do not increase urination, and those which decrease the output of urine. If the capacity of the bladder is unimpaired, the patient will urinate much oftener, as a rule, if the urinary apparatus is diseased. Among diseases which cause increased amount of urine are: diabetes mellitus and insipidus, chronic interstitial nephritis, urina spastica. In inflammatory conditions, such as prostatitis, posterior urethritis, vesiculitis, inflammatory conditions around the veru-montanum, trigonitis and cystitis, the frequency is increased, while the output of urine is normal. If the inflammation is confined to the urethra alone, such as in posterior urethritis and trigonitis, the urgency exists both day and night, while in prostatitis or hypertrophy of the prostate, frequency is usually in the nighttime. In neuroses of the bladder, frequent micturition is by day, and not by night. To contrast frequent urination of hypertrophied prostate and that of vesical calculus is quite interesting; in the former, urination is much more frequent at night. We have known patients to empty their bladder almost every hour during the night, thereby losing the much-needed rest which is so essential to prostatics, and would go with comparative ease throughout the day; while in vesical calculus quite the reverse is true—patients do well during the night-

time, ofttimes sleeping throughout the entire night without a single micturition, but, upon arising, with their accustomed daily duties, which entail exercise or movement, the frequency of urination is increased to a marked degree, as in contra-distinction to a peaceful night. You should at once appreciate the value obtained by the close questioning of your patient as to frequency and urgency of urination. This can best be done by asking if he urinates oftener than he formerly did; if he does, ascertain if the increase is night or day, or both day and night, and if more pronounced at any special time of the day, and whether or not exercise has any influence towards increasing urinary frequency.

Changes in the Urinary Stream.—Diminution in the urinary stream is the first and constant symptom of stricture of the urethra. This is marked to such an extent (allowing for variations) that it may be said without contradiction the tighter the stricture the smaller the stream. One can oftentimes judge a filiform stricture by the size of the stream passed. In very tight strictures the stream may be wanting altogether: the urine is then voided drop by drop. The stream is partially or entirely obliterated when the bladder loses its tonicity and force, as in tabes, or when there is some obstruction in the urethra or near the bladder neck, such as stone, enlarged prostate, and occasionally a tumor may cause this condition. Therefore, it is our customary rule to lay particular stress on changes occurring in the urinary stream, thereby obtaining much information which ofttimes proves a nucleus tending towards the diagnosis.

Pain.—Pain, as a symptom of diseases of the genito-urinary tract, while not reliable, and subject to various interpretations, is, as a whole, exceedingly important. The first consideration of pain is its location, whether over the kidney, bladder, ureters or urethra. Its exact location should be localized, if possible, and its relation to urination specifically noted. It should be ascertained whether pain is associated with the urinary act or whether independent of urination. The relation of exercise in regard to pain, whether increased or diminished: for instance, the pain of renal colic usually occurs on the side of the diseased kidney, and radiates along the ureters to the groin, and is markedly exaggerated by movements of the patient. Pain of vesical calculus usually radiates towards the head of the penis, and is especially marked in the posterior urethra, and at times the testicles may be the seat of pain which is

reflex in character. Exercise plays the most important part in increasing pain due to bladder stone.

Pain of stricture occurs, as a rule, at the strictured mass. In hypertrophy of the prostate, especially in the acute variety, the pain is felt in the perineum and rectum, and at times will radiate down the thighs. The pain of stricture of the urethra occurs during urination and intercourse, while in inflammations of the bladder-neck and trigone the pain is after urination, and persists for some time thereafter. It is useless to state that there are many exceptions to these rules, but, as in circumstantial evidence with the jurist, it is but one of many links that, when joined together by other corresponding evidence, goes to form a chain upon which the diagnosis is presumed. In the more detailed genito-urinary work diagnosis is often difficult in the extreme, occasioning the use of more intricate methods of procedure, such as cystoscopy, endoscopy and microscopic and chemical examinations of all parts of the genito-urinary tract, together with various and sundried functional tests of kidney cases, which the specialist should be prepared to enter into more minutely.

Pointers Furnished by the Macroscopic Aspect of Urine.—Normally, urine is clear, with a color of some shade of yellow, varying from nearly colorless to reddish yellow, depending generally upon the degree of concentration. Its odor is characteristic; when it putrefies, the odor is ammoniacal and offensive. In cystitis, if alkaline, it is ammoniacal when passed. In suppurative diseases the odor may be putrid. Standing urine is of little diagnostic value, for the deposit is generally due to the precipitation of its salts, and its cloudiness to changes of temperature and exposure to air, with decomposition. The sediment is of value only when sedimentation occurs shortly after emission. The whitish urine is observed especially in neurasthenics, and is often associated with polyuria, especially *post prandum.* The highly-colored urine is observed in febrile conditions, also in icterus and constipated patients. In the latter, coloring is due to indican or urobilin. Exceptionally, we find in normal urine a cloudy deposit, extremely mobile, very refringent, of one to three inches' thickness. This condition is due to the presence of large quantities of mucus, which is not morbid. In the female, slightly cloudy urine may be due to the washing of the vulva during urination.

Cloudy urine, which reveals urethra, vesical or renal lesions, is

rather easy of interpretation. We must, however, immediately eliminate the cloudy urine due to phosphaturia, which we may call "muddy" urine, due to its density and the general aspects which it presents. This condition is especially observed in young neurasthenic females and in young men who are anemic, fatigued, and who largely spend their time in mental or intellectual work, and is due to a large elimination of minerals. It is easy to differentiate this urine from the frankly purulent one, for, by the addition of pure glacial acetic or phosphoric acid, the salts dissolve and the limpidness of the urine reappears. This test is indispensable, often preventing the patient from receiving unnecessary medicated irrigations of the bladder. It is again important to have your patient urinate in two glasses at least, to eliminate lesions from the urethra or prostate. A cloudy urine, with shreds in the first glass, the urine of the second glass being clear, will be in favor of an acute or subacute urethritis. Clear urine, with shreds in the first, will be in favor of a chronic urethritis, with or without folliculitis.

As to the abundance and aspect of the pus in the second glass, this is what we generally meet: the urine may or may not have a deposit. In the first case it is rather difficult to state the part played by the kidney or bladder. When a deposit, however, this deposit may be grayish, slightly mobile, scarcely concrete, and not very abundant. We are then dealing with vesical pus. If the pus is due to cystitis, we have our three principal symptoms, namely: pain, purulence and frequency, with tenesmus going as far as incontinence. The cystitis may be due to a simple infection brought on by catheterization. May be an infectious cystitis or a post-blenorrhagic one. May also be caused by a tight stricture. The history given by this patient will generally clear up these condition. In tuberculous cystitis the family and personal history of the patient, his aspect, and the chronicity of the affection are etiologic factors of first importance, and the genital lesions, prostato-vesicular or orchi-epididymary, will often, by their presence, put the seal on our diagnosis. The cystoscope will in these cases render great service.

Vesical pus may again be due to foreign bodies: stones of uric acid, phosphatic or oxalic origin; or again exogenitic bodies, as hair-pins, conductors, pieces of catheter, etc. The history of the patient, with the assistance of the cystoscope, will confirm our diagnosis.

Lastly, let us mention pus due to hypertrophied prostate, which prostatics suffer with complete or incomplete retention. This infection is due to the fermentation of the non-voided urine, and very often to the infection produced by a septic catheter. The age, history of the patient, rectal and cystoscopic examinations will clear our diagnosis. A patient may sometimes urinate large quantities of pus with no cystitis and no renal complications. We must then think of a pre-vesical abscess with secondary opening in the bladder. The cystoscope is of indispensable use in these cases (which are rare). However, the general practitioner should not overlook these cases, so as to clear the diagnosis of a difficult one.

When the deposit is greenish, abundant, dense and concrete, falling heavily to the bottom of the glass, we are probably dealing with a hydro- or pyo-nephrosis. The infection may be tuberculous, and the whitish, soapy-water-looking urine will be in favor of this condition. In pyelitis we observe polyuria with cloudiness, urine pale, without chromogen, holding inferior quantities of urea and chlorides, well showing the feebleness of the organic exchanges.

Albuminuria, in all these cases, is present, but we must not forget that this may be simply a false or leucocytic albuminuria, not an essential one. This is the reason why the practitioner must always notice the color of the urine before making chemical examination.

Hematuria.—Hematuria, with pyuria, is one of the great syndromes which dominates the whole of urinary pathology. It is the first which attracts the attention of the patient; it invites him to consult the physician, and the primordial importance is justified by this fact: that it suffices by itself, when it is observed and analyzed, to make an almost exact diagnosis, which is not the rule with other affections, which necessitate at least the co-existence of two or more symptoms. Blood may come from the urethra or its glands, from the bladder or higher organs, the kidneys or ureters.

If the blood comes from the urethra it may be a traumatic rupture of the perineal urethra resulting from a fall, in which cases, besides the hematuria, we generally observe a perineal tumor and a reflex retention of urine. We may also observe a bloody discharge in urethral polypi and urethral calculi diagnosticated with the urethroscope. In these cases, which we may call "distilling urethrorrhagia," the blood escapes drop by drop from the meatus. We are not then dealing with a true hematuria, as will be mentioned in the following affections:

If the blood comes from the urethral glands, prostate or seminal vesicles, we are now dealing with an initial hematuria, one of "washing." The first jet of urine chases the secretion which may have collected in the prostatic urethra, and we have then a slight hematuria, slightly cloudy, rusty-colored as a rule, with clots of a brown haze, and we must then think of a beginning cancerous prostate. In more advanced cases the diagnosis will depend on the rectal touch and the state of the prostate, which is of a linear hardness, filled with nodules, varying from the size of a pea to that of a large nut. Truly, it is rare that we observe hematuria in true hypertrophy of the prostate, tuberculous prostatitis or diffuse prostato-pelvic carcinomata. Allow us to state, rapidly, the bloody ejaculations (hemaspremia) which we rarely observe in certain non-specific vesiculitis.

If the Blood Comes from the Bladder—With Cystitis.—If the blood is present during the whole of micturition, or only at the end (total or terminal hematuria), we are dealing with a hemorrhage of the body of the bladder with co-existing symptoms, pain, pyuria and frequency; or, again, with a hemorrhage from the neck of the bladder, its most vascular region. In intense cases the bloody appearance from the middle portion of the micturition will be more pronounced than at the end, which already allows us to differentiate it from renal hematuria. In cases of simple inflammatory hematuria of gonorrheal origin the patient's history will make the diagnosis. Very often, also, we are dealing with a tuberculous hematuria, with or without ulcerations. Our diagnosis is based on the general condition of the patient, which is usually precarious, on the small bladder capacity, the existence of other lesions of the uro-genital apparatus, and in particular on the frequent presence of a nodule, round and hard, at the junction of the prostate and one of the seminal vesicles, and lastly the finding of the Koch bacillus and the disintegration of the white blood cells and the inoculation of the guinea-pig.

We must also mention hematuria due to foreign bodies, and in particular hematuria due to calculi. We recognize the condition rather easily, for its character is that of being "provoqued"—that is, that it appears preferably during the evening after a hard day's work, a prolonged walk, a ride in a carriage, car or other vehicle. With this pathognomonic sign we may have pain radiating towards the end of the penis, pyuria, frequency of micturition, and occasional

stopping of the urinary stream due to the stone acting as a ball valve.

Without Cystitis.—When blood comes from the bladder without cystitis we must immediately think of vesical tumor. The hematuria is generally *spontaneous,* coming on at any time during the day or night, and which distinguishes it from the "provoqued" hematuria caused by calculi. This hematuria may be very abundant, red or black, and most frequently with clots. We do not dwell too deeply on the hematuria due to hypertrophy of the prostate, which is one of congestion, easily diagnosticated. Also, hematuria due to too rapid evacuation of a largely distended bladder.

The blood comes from the reno-ureteral apparatus. The general characters of renal hematuria may be classed thus: First, it is, as a rule, except perhaps in T. B., rather marked; second, the hematuria is generally total—that is, the urine is equally colored from beginning to end of micturition; third, the hematuria contains long clots, rounded and moulded in the ureter.

In this hematuria, of renal origin, we recognize numerous causes which we may divide into hematuria of rare causes and hematuria of frequent causes. In hemorrhage due to rare causes we may mention acute nephritis due to scarlatina, pneumonia, diphtheria, etc., the diagnosis of which presents little difficulty. Also chronic nephritis (Bright), with albuminuria and casts associated with the hematuria. We might mention hematuria due to renal congestion during pregnancy, and also that due to floating kidney, observed so frequently on the right side of women.

Of the frequent causes of renal hematuria, the three most important are: tuberculosis, calculi, and cancer. Renal hematuria due to tuberculosis is mostly unilateral in the beginning, may present only slight hemorrhage, giving just a pink tint to the urine. The patients are generally children or young adults, rarely old persons, and the hemorrhage may be rather discrete for a while. Palpation is difficult, especially during the period of granulation or ulceration. Our diagnosis is based on the fact that, outside of these periodical hematuriæ, the urine remains cloudy—that is, pyuria co-exists. Hematuria of renal tuberculosis is not accompanied by pain, as a rule, is seldom influenced by fatigue or rest, but appears at any time.

Renal calculi causing hemorrhage is often associated with pain in the lumbar region, radiating down the groin into the testicle,

with pyuria, and its main feature is that it is "provoqued." Usually the kidney is not palpable. Hematuria due to renal cancer is almost always spontaneous, and generally one of the late symptoms of renal cancer, and when the patient presents this condition we may be sure to find an enlarged kidney. Outside of the periods of hematuria the urine remains clear.

And, in conclusion, we will state that hematuria not associated with organic trouble may be caused by medicinal substances—mercury, cantharides, etc.—which often disappear when the drug is discontinued. Parasitic hematuria, filiaria sanguinis, is only observed in patients coming from warm climates, and who, besides hematuria, suffer with chyluria.

Herniotomy Under Local Anesthesia.*

By CARROLL W. ALLEN, M. D., New Orleans.

My excuse, if any is needed, in again appearing before a medical meeting and discussing a subject dealing with local anesthesia, is the fact that many otherwise able surgeons have but a vague idea of the advantages presented and often an indistinct conception of the technic and principles involved, often using even primitive methods in the preparation of their solutions. In the following discussion I will outline some historical data, describe the nervous anatomy of the region and the technic which has seemed the simplest, most effectual and quickest.

Matas has said:

"One of the most notable benefits that surgery has derived from the introduction of local anesthetics has been the successful local anesthesia of the hernial regions, notably the inguinal region.

"One of the earliest applications of local anesthesia by the use of cocain for the relief of strangulated hernia was made by an American surgeon (Hewlett, 1887). Since that time the reports from German, French, Italian and American clinics have so steadily increased that it would be difficult to even mention the names of the operators without risk of serious omission.

"It would be difficult to trace the history of cocain to its first application in the radical cure of hernia, but it is evident that many operators in this country and in Europe began to resort to this mode of practice even in the early days of cocain technic. Reclus, in his book on 'Cocain in Surgery' (1895), describes his method of infiltration (with 1 per cent. solution) for the cure of hernia, which he has performed as a typical procedure many times. Ceci, of Pisa, in a contribution *(Semaine Medicale,* Paris, xix, p. 41) as early as 1899 states that, by combining the statistics of his clinics in Genoa and Pisa (1885-1899), he had collected 543 radical operations for hernia, which were anesthetized with cocain alone. Ceci made use of a 5 per cent. cocain, prepared with 3 per cent. boracic acid solution. He believes in deep infiltrations, including the hypoderm and the sub-

* Read before the Orleans Parish Medical Society, August 12, 1912.

aponeurotic layers in his primary injections, without reference to a separate analgesia of individual nerves of the region. The large number of personal observations reported by Ceci alone indicates that up to 1899 great success had already been attained in the radical cure of hernia by the earlier methods of direct local infiltration."

Since these early days these contributions have been too numerous to mention, and the performance of this operation under local anesthesia is now no longer a novelty.

The value of the neuro-regional method had not been tested in this operation until 1897, and it remained for Dr. Harvey Cushing, of Johns Hopkins University (Prof. Halstead's clinic), to do so. And again, in 1900, in the *Annals of Surgery,* he thoroughly discusses this method, which has been tried and accepted the world over by all who resort to local anesthesia for this operation.

There is probably no commonly-performed major operation that is more inviting to local or regional methods of anesthesia than inguinal herniotomy. This is so on account of the superficial position of the parts, the anatomical arrangement and the course and distribution of the nerves involved.

Such operations, under local methods, require a thorough knowledge of anatomy, often a more accurate knowledge than is required for the same operations under general anesthesia. It, above all, makes of us nerve anatomists, and forces us to respect and preserve from injury all nerves encountered. While during the operation we are principally concerned with the sensory functions of the nerves, we must not lose sight of the fact that most nerves are motor and trophic, as well as sensory.

Division of an important nerve may be followed by muscular atony and relaxation of the parts, and, in the case of herniotomy, be followed by a recurrence of the trouble, and unpleasant sagging of the scrotum, in case the cremaster muscle is paralyzed by division of the genital branch of the genito crural, or a possible atrophy of the testicles. Of course, such injuries should not occur in the hands of careful operators, even under general anesthesia, but under local anesthesia there are greater precautions taken, as we are forced to recognize and respect each individual nerve.

One of the many advantages of local over general anesthesia is particularly emphasized here in the absence of vomiting; these efforts, if prolonged or severe, may compromise the results of the operation by loosening sutures and favor a recurrence of the trouble. This is particularly likely to be the case in large or complicated

hernias, where, often, extensive plastic resections are necessary to secure a satisfactory closure. For this, if for no other reason, should the local method be preferred, and I believe that a comparison of statistics will show a lesser percentage of recurrences following closure in this way.

The size of the hernia is no contraindication for this method, nor is the age of the patient, providing he is enjoying fairly good health—in fact, old age is particularly favorable to all local anesthetic procedures. Many of these old subjects may be refused operation by general anesthesia, when they can be safely and easily operated upon by this method. It is advisable that these old patients should be put to bed for a day or two before operation, to see how they stand confinement and to enable them to learn to empty their bladders and bowels in the recumbent position.

Another important consideration, which applies to all classes, but more particularly to the aged, is that nutrition is not interfered with, as there is no disturbance of the gastro-intestinal tract. A light meal is always preferred just before operation, but nourishment should be restricted to liquids after operation, excluding milk for the first day or two. If the subject is very feeble, stimulating drinks, such as coffee, toddy or hot tea, can be administered during the progress of the operation. By handling feeble and aged subjects in this way, by local anesthesia, many can be safely carried through an operation for hernia, without any operative or post-operative disturbance whatever, who would most probably succumb, if not to the operation, at least to the necessary post-operation disturbances following general anesthesia.

There are three nerves with which we are particularly concerned in inguinal hernia—the ilio-hypogastric, ilio-inguinal and genito-crural.

The skin over the region receives branches from several of the surrounding nerves, especially the last dorsal, but, as it is infiltrated directly, these do not especially interest us.

The ilio-hypogastric perforates the transversalis muscles at its posterior part near the crest of the ilium and gives off its iliac branch, which descends; the hypogastric branch continues forward between the transversalis and internal oblique, perforating the internal oblique just above and a little to the outer side of the internal ring. It then runs transversely inward towards the middle line on the surface of the internal oblique, and just above and a

little to the outer side of the external ring, pierces the aponeurosis of the external oblique, and is distributed to the skin of the hypogastric region.

The ilio-inguinal nerve appears in the field after perforating the internal oblique at or near the internal ring and descends along the lower part of the inguinal canal; it terminates by distributing fibers to the side of the scrotum and thigh. This nerve is not constant, and occasionally is found joined to the genital branch of the genito-crural, to form the external spermatic nerve.

The genito-crural nerve, its genital branch, appears at the internal ring and passes down the back part of the spermatic cord into the scrotum, where it supplies the cremaster muscle, testicle and other contents of the scrotum. The skin of the scrotum receives fibers from the inferior pudendal branch of the small sciatic and from the superficial perineal branch of the pudic, in addition to the ilio-inguinal nerve already mentioned.

It will be seen, from the study of the above, that, after the skin is passed, all nerves entering the field emerge at or near the internal ring, and it is consequently here that we inject most of our solutions.

Preparations for the Operation: Preliminary hypodermic or morphin, gr. $\frac{1}{6}$, with scopolamin, gr. $\frac{1}{150}$, one hour beforehand.

Four ounces of solution No. 1 (novocain $\frac{1}{4}$ per cent., sodium chlorid .4 per cent.), to which add fifteen drops of adrenalin solution, 1 to 1,000. If the hernia is a very large one it is well to have on hand more than four ounces. Small hernias may not require this much, but it is well to have an ample supply.

Two ordinary hypodermic syringes and one large syringe, which will hold about one-half ounce, with long, fine needle, or a Matas infiltration apparatus—all well tested beforehand, to be sure they are in good working order.

Some operators prefer to inject the cases about fifteen minutes to half an hour beforehand, and allow them to wait for the solution to diffuse and become fixed in the tissues. This practice, while advisable elsewhere, we do not find necessary here, and proceed at once with the operation. Also, some prefer to use a 1 per cent. novocain solution to infiltrate the nerves as they are encountered, but, as all the nerves concerned are very small, it is unnecessary to use any but the ordinary infiltration solution (No. 1).

Begin the injection with small hypodermic syringe at the highest point of the proposed incision, at the upper and outer part of the

field. Make the injection intradermally. With the large syringe and a long needle enter at this point, directing the needle downward to the subcutaneous tissues, and inject about one-half ounce in this position and another half ounce is injected subcutaneously along the proposed line of incision by advancing the needle in this direction, injecting as it is advanced. If the patient is very stout and there is much subcutaneous fatty tissue, more than this may be needed, but in the ordinary case the above is sufficient.

While we are waiting for these subcutaneous injections to diffuse, the infiltration of the skin is finished. By starting at the already injected point on the skin, proceed downward and inward intradermally the full length of the proposed incision. After this has been done the incision can be made at once and carried down to the aponeurosis of the external oblique. Expose this freely over the site of the internal ring, and with the large syringe inject about one-half ounce of solution just under the aponeurosis at this point. Now, while waiting for this to act here, secure and tie any superficial vessels that may be necessary, and expose the rest of the field by gauze dissection. Now, slit up the aponeurosis of the external oblique to above the internal ring, retract, and you bring into view the ilio-hypogastric nerve. This has probably already been anesthetized by the last injection, but if there is any doubt it can be injected intra-neurally or peri-neurally with the small hypodermic syringe.

Retract upwards the internal oblique and transversalis, to better expose the internal ring. If the ilio-inguinal nerve is seen on the lower side of the cord, infiltrate it at once high up; if not seen, inject circumferentially around the neck of the cord several small syringes full of solution.

This will permit it to be freely handled and the ilio-inguinal and genito-crural nerves looked for—the ilio-inguinal on the lower side of the cord and the genito-crural behind. If any trouble is encountered in finding them, and it is likely that the cord or scrotal contents will be handled, then a free infiltration of about one-half ounce around the neck of the cord will suffice, and will reach both nerves involved. If such an injection is made, care should be exercised not to enter any veins. It is, of course, far preferable to locate the nerves. The sac is now picked up and opened, and any contents replaced in the cavity. If they are adherent, their separation does not cause pain. Omentum may be resected, if necessary, with-

out pain. A finger is now passed into the cavity through the neck of the sac, and two or three small hypodermics of the solution distributed subperitoneally around the neck. The sac can now be dealt with by any method preferred—if small, excised; if large and adherent, it can be divided, slit up and left in situ, to be eventually absorbed, or it may be entirely removed.

An existing varicocele, or any other complication, should be dealt with now, and requires no further infiltration. The testicle may be also exposed and handled, if necessary. It should be borne in mind, however, that any undue traction upon the cord, by pulling upon the parts within the cavity, will cause pain, but none is othewise experienced. The neck of the sac can now be closed, by crushing, and ligated, or sutured, if preferred.

The operation usually performed is the Ferguson-Andrews. Here the cord is not disturbed, and consequently may require less preliminary injection, as it is left in its bed and all structures sutured over it, the aponeurosis of the external oblique being overlapped. However, the operation can now be completed by any of the accepted methods, the Bassini, or any of its modifications.

If the above technic is followed, absolutely no pain should be felt by the patient; where pain is inflicted, the technic is at fault. In the hand of a skilful operator, an ordinary hernia can be closed by using not over three ounces of solution (we often use much less), and the time consumed is not over five or ten minutes longer than would have been required with general anesthesia.

Society Proceedings.

The Southern Medical Association. Sixth Annual Meeting, Jacksonville, Florida, November 12-14, 1912.

The General Sessions.

(Reported by Dr. Isadore Dyer, New Orleans.)

Another successful year has been closed for the Southern Medical Association. The recent Florida meeting has demonstrated the important relation of this young association in the medical affairs of the South. With an attendance of fully four hundred physicians, representatives of their various States; every section did good work.

Upon the urgent solicitation of their representative State bodies, the physicians of Oklahoma are now eligible to the membership, making fourteen constituent States in the organization.

The program might have been even more interesting if the absentees who were listed to read papers had been present. Another year there will be no such list as the rule has been passed barring all such members from participating in the program for at least one year in some sections and as much as three years in others. The next meeting will take place at Lexington, Kentucky, the date to be announced later by the council.

The new officers are Dr. Frank A. Jones, of Memphis, president; Dr. Stuart McGuire, of Richmond, first vice-president; Dr. J. D. Love, of Jacksonville, second vice-president; Dr. Seale Harris, of Mobile, secretary-treasurer.

The present membership (before the meeting) as announced in the secretary's report is 1,243, with the following distribution: Alabama, 210; Arkansas, 19; District of Columbia, 11; Florida, 133; Georgia, 136; Kentucky, 14; Louisiana, 133; Maryland, 20; Mississippi, 245; North Carolina, 37; South Carolina, 30; Tennessee, 182; Texas, 31; Virginia, 35; West Virginia, 37.

The association adopted various resolutions: Memoralizing Congress on malaria investigation; congratulating President-elect Wilson and urging his active interest in Public Health; condemning fee-splitting; urging the press to engage in the education of the public in sanitation; ordering systematic consideration of eugenical questions at future meetings; placing transportation vehicles under control of sanitary rule of health authorities.

More direct resolutions were passed establishing a quarterly bulletin of the association for general circulation and the continuance of the association's malarial commission. An annual appropriation for a gold medal was also voted to be given for meritorious work of members, and for 1912 the medal was unanimously voted to Dr. C. C. Bass, now Professor of Experimental Medicine at Tulane, for his special work in the study of the malarial organism.

The committee of arrangements, with the Jacksonville Board of Trade and the citizens, provided excellently for meeting places and entertainments, and throughout the spirit of the meeting was materially aided by the excellent provisions for all matters related.

On November 12, shortly aften ten o'clock, the opening meeting was called to order, and after the customary address of welcome and response, the president, Dr. J. M. Jackson, of Miami, Florida, delivered his address. He reviewed the story of the association in its progressive organization, from the small beginnings in 1906, at Birmingham, to the present, felicitating those men who conceived the idea of such a body and their courage and success in its advancement. He touched on the work of the association *Journal* and its editors, and dwelt upon the need of bringing the history of medicine in the South up-to-date.

A thorough review of medical education in the South was undertaken, with some commentary; Dr. Jackson stated that there were 48 medical colleges in the 13 States comprising the association—most of them deriving support solely from students' fees. In his opinion, seventy-five per cent of these schools could pass out of existence and there would still be ample facilities in the colleges remaining to satisfy all demands for the medical education of Southern men.

A revision of reciprocity methods among the States was urged, in relation to a revision of medical colleges in the South. An association of Southern medical colleges would do much in solving all of these problems and might deal directly with medical education on a higher plane, if such an association was properly organized.

The place of the parasites of the profession was discussed as compared with the practices of other countries, and the practice of Germany in licensing quacks as such was instanced.

As a conclusion, Dr. Jackson said:

"May we not see inscribed as the motives of this Southern Medical Association:

"First—The study of diseases and conditions of the South and the encouragement of original research work in the Southern medical field.

"Second—The collection and preservation of the history of the achievements of medical men of the South.

"Third—The stimulation and advancement of medical education to a high standard."

Following President Jackson, Dr. Seale Harris, secretary- treasurer, had a lengthy report dealing with the problems of his office, detailing the treasurer's report, the work of the year, etc.

The salient features of the report covered the facts that the deficit of the previous year has been reduced 50 per cent; that the membership had more than doubled in the year; that Oklahoma had solicited admission to the association; that practically all of the States eligible since last year had, at their State meetings, endorsed the purposes of the Southern Medical Association, among these Georgia, North Carolina and South Carolina being especially noted.

Attention was called to the bulletin issued just before the meeting, and that 12,000 of these had been sent out; the association was asked to adopt the plan of a regular quarterly bulletin like the one issued.

Following the secretary's report, Dr. Stuart McGuire was introduced as the orator on surgery, presenting as his subject the "Surgery of the Thyroid Gland." The matter was handled in an academic manner, and, while presenting nothing in discovery, the subject was reviewed in each of its phases, including the history of the Study of the Thyroid, its anatomy and physiology, all related to the evolution of its surgical aspects.

The function of the thyroid, though not yet determinate, is known to be carried out through internal secretions and the products, traveling through the lymphatics, may be found in the blood. The active principles of the thyroid are not known in entirety, but the use of the thyroid derivatives in therapeutics shows some of its chemical purposes.

The physiology of the gland is still a mystery. Its clinical effects, shown in young and old, indicate that it acts in some relation to nutrition, and in relation to all the organs of the body and where the clinical symptoms point to an excessive function it tends to show a "tragedy in the life of the subject."

The gland has products of different purpose, and as to func-

tions it may produce "endogenous toxins," or else "harmons"—either having various effects on the individual.

The time may come, the author declared, when the thyroid may be recognized as the "pace-maker" of the body, and in this gland may be found much of the aberrant lines in the structure of society, expressed in genius or in crime.

The thyroid is not independent in its function and attributes; other ductless glands are involved.

With such introduction, briefly abstracted here, Dr. McGuire proceeded to outline the various disorders of the thyroid, so far known—embracing the further discussion under the general headings of—simple goiter, hyperplasia, atrophy and myxedema.

In exophthalmic goiter, the diagnosis is not always easy, early in the disease, and for effective surgery to take its place, the diagnosis should be established early.

Drugs have not yet found a place and to assure this dictum, the author reviewed the many drugs and serums used without final avail in the treatment of this disorder, giving due credit for those remedies which may have "helped."

The other types of goiter were discussed in detail, but the interest in the paper particularly attaches to the general review of surgical procedures—beginning with Kocher's first efforts with 40 per cent mortality, to his present success with less than three-tenths of one per cent of loss of life in a later group of 1,000 cases.

The technic of operative procedures was not detailed by Dr. McGuire, but he related the various methods employed and the best results obtained.

The complete removal of the gland, the ligating of contributing vessels, the obstructive treatment, each had, in time, yielded to the advancement of ideas until a combination of procedure now assured good results and promised better results.

The degree of the removal of the gland is important, and until we know more this procedure should be conservative. Ligation is advised in mild cases, and in bad cases such a procedure should be employed as a preliminary. Is is better to take out too little of the gland than to take out too much; the tube and the isthmus are removed by conservative surgeons to-day, as the rule.

The method of anesthesia employed was covered in some detail: Kocher made it the rule to operate with local anesthetics, while

the Mayos and other American operators employed general anesthetics and the results seemed to be about the same.

The injunction was impressed regarding the preoperative observation of the patient and rest and care were advised before any operation was undertaken. The speaker concluded with the statement that the present mortality was from 2 to 5 per cent, but that these statistics were based upon the experience of the best operators.

The first morning exercises were concluded with a paper on "Empiricism in Medicine," by Dr. H. H. Martin, of Savannah. The essayist urged more conservatism in the use of drugs and made a plea for better prescription writing and the abandonment of polypharmacy. He attested the aphoristic statement that fifty per cent of sick people got well without medicines, and suggested that the other fifty per cent would do better with less.

The second general meeting was held on the evening of the second day, Wednesday, November 13, and on this occasion two papers were discussed.

Dr. Robert G. Wilson, Jr., of Charleston, read an interesting review on the "Medical History of the South." The speaker excused the limitations of his effort, in which the distinguished men in medicine in the Carolinas was chiefly discussed, but he urged that if his efforts would encourage like undertakings in other sections of the South, it would have been worth while to have started the "History of Medicine in the South."

Dr. Wilson was followed by Dr. W. C. Rucker, of the U. S. Public Health Service, who filled a whole hour in presenting the work on the plague eradication in San Francisco. The lecture was illustrated by many lantern slide pictures—fully discussed by the distinguished speaker and as an educational lecture, the representation was in every way comprehensive. In frequent eloquent outbreaks of enthusiasm over his subject, Dr. Rucker appealed to the audience to take the lesson home and destroy the rat before it was too late to do it easily.

The first evening was occupied by a vaudeville smoker, at the Jacksonville Board of Trade, and the second evening concluded with a banquet at the Morrocco Temple.

The various sections were successful in the arrangement of papers and their discussion; the JOURNAL is indebted to the New Orleans

members in attendance for such special reports as we are able to present for each section.

The afternoons of each of the three days of the meeting were set aside for the symposiums of "malaria," on the first day; "syphilis," on the second day, and "plague," on the third day. The program for the first two days was carried out successfully, but for the third day the program was abandoned as four of the five contributors, all four from New Orleans, were not present at the meeting, although their papers were announced.

All of the papers on the malaria symposium were of excellence and of interest, but the attention centered in Bass' demonstration of his work in the "Successful Cultivation of Malarial Plasmodia" which was presented with numerous lantern slide illustrations, showing the various stages of his experimentation and findings. The subject was clearly exhibited and at the conclusion of the lecture, for such it must be called, Professor Bass received a general expression of the appreciation of all present, for this great achievement for Southern medicine, and we of New Orleans felt especial pride that we had harbored the author of the discovery, so beautifully presented at the meeting.

The Symposium on Syphilis, November 13, attracted a large attendance, and papers of various phases were presented by Drs. Halsey, Dowling and Dyer, of New Orleans, and by Dr. Kirby-Smith (Jacksonville), H. H. Martin (Savannah), and Litterer (Nashville).

In concluding any review of so diversified a meeting, we may be forgiven for expressing the wish and hope that the chairmen of sections next year may see to it, that only those men may be invited on the program who expect to be present to read their papers, and that a multitude of papers is far less desirable than a few papers, well prepared and as well presented.

No account of the meeting would be complete without a note of appreciation of the work done by the Malaria Commission with Craig as Chairman, and Henson as Secretary. The report was made almost at the last minute on the last day, but the conclusions were valuable. After reviewing the careful detail undertaken in studying the economic questions on malaria in each State, the commission concluded with the estimate that 5,656 lives were lost in one year, at a cost estimated at $16,838,000!

The Surgical Section Meetings.

(Reported by Dr. Isidore Cohn, New Orleans.)

The program of this section offered many interesting titles, and in spite of the absence of a number of men, whose names were on the program, the meetings were interesting and instructive.

In his address as chairman of the section, Dr. H. T. Inge, of Mobile, reviewed the progress of surgery during the past thirty years, the period in which he had been engaged in practice, and he began with McDowell's pioneer work and concluded with exploratory laparotomies without proper physical examination to determine the cause of disease. He sounded a warning for better and more careful physical examinations. Attention was also called to the distrust the public will have for the man whose patients always need immediate surgical attention.

Dr. Inge decried the fee-splitting habit, and all other methods of commercializing the profession, among which were named having "press agents" and having names printed on association programs with no intention of attending meetings.

Dr. J. Shelton Horsley, of Richmond, read a paper, entitled "Some Modern Factors of Safety in Surgery." The gist of his paper may best be given in his own words:

"In summing up the recent factors of safety in surgical operations, I would emphasize anoci-association, reducing infection by conserving natural immunity and by the elimination of dust, transfusion of blood, arterial suturing, and the practical application of the surgeon's knowledge of pathology to the diagnosis and extirpation of malignant tumors."

Dr. P. C. Perry, of Jacksonville, read a paper, entitled "Ulcers of the Stomach and Duodenum." He reviewed the etiological factors, symptomatology, diagnosis and the treatment of these conditions.

Dr. W. A. Bryan, of Nashville, presented a paper on "The Discrepancy between Clinical and Post-mortem Findings in Cancer of the Stomach." He gave the following statistics: Kampman, 1,078 post-mortems on cancer of the various parts of the body; in this series there were 28.66 per cent of primary carcinoma of the stomach. Reiche's statistics show 50 per cent; Martin's show 33 per cent.

In the light of these statistics, the writer asked the questions:

(1) Are we finding clinically really this great number of cases?; (2) Do we diagnose the cases before there is a palpable tumor?; (3) Do we find as many carcinomas of the stomach as we find in the uterus and the breast? He answers these question in the negative.

For the reasons, he stated that we are still treating "indigestion" and we wait, further, for symptoms. The symptoms which are looked for are those of the late stage of the disease. Emphasis was laid on the facts that pain may be a late symptom; hemorrhage is an evidence of ulceration and that obstruction is only possible when the growth has attained such proportions that it is capable of constructing the pylorus.

Dr. Bryan suggests as a remedy for the discrepancies which exist, first, systematic education of the laity to avoid the quack and patent medicines when they have symptoms of indigestion; second, more careful history taking, followed by a careful analysis of the history and a diagnosis by exclusion; third, early exploration when there is a suspicion of cancer.

Dr. C. M. Remsen, of Atlanta, read a paper on "A Few Surgical Complications in the Abdomen in Typhoid Fever."

Instestinal perforation, appendicitis and cholecystitis occuring during the course of typhoid fever were discussed.

The salient feature of the paper was the plea for more careful observation of the abdominal signs and immediate interference when evidences of perforation appear.

Dr. Tyler, of ————, reported a case of "Volvulus of the Sigmoid," in which the following symptoms were noted: Colicky pains in the abdomen, constipation and vomiting. Constipation was not relieved by enemata or catharsis. Vomiting became fecal in character and distention was marked. Operation was followed by death.

Dr. Tyler quoted statistics from various sources, viz: Philipowicz, 32 cases of volvulus of the sigmoid; Massachusetts General Hospital with a series of 121 cases, including 8 cases of volvulus of the sigmoid.

The condition usually is a condition of later decades of life, the rarity during early life is attributed to the greater length of the sigmoid. In the literature, 81.5 per cent of all cases (404) collected were males.

Giant sigmoids and meso sigmoiditis were mentioned as probable etiologic factors.

Two types of volvulus of the sigmoid were described: acute and chronic. The doctor essayist stated that the diagnosis is not difficult as there is a history of constipation, sudden colicky abdominal pains, general or localized in the left lower quadrant.

Treatment was considered under the three heads: (1) Non-operative; (2) operative, and (3) the prevention of recurrence.

Dr. J. A. Crisler, of Memphis, read a paper on "The Surgical Treatment of Infection of the Peritoneum, with especial reference to immediate sterilization of the same." The paper was based on the use of large quantities of the tincture of iodin and alcohol in equal proportions, employed in the abdomen and flush out all pus cavities.

Dr. Crisler declared, "we simply put out the fire with this mixture and disregard infection thereafter." This paper provoked lively discussion as many of the disputants among the members present believed the procedure dangerous.

Dr. Joseph Graham, of Durham, North Carolina, presented a paper, entitled "Operative Treatment of Fractures." The main points brought out were the necessity for a general anesthetic, the value of the radiograph after reduction, and the necessity for operation where deformity could not be reduced.

Dr. Winthrop, of Mobile, read a paper along the same lines.

Dr. Isidore Cohn, of New Orleans, presented a paper on "The Management of Fractures of the Elbow," and laid emphasis on the following points:

(1) Hyperflexion is the position of greatest stability; (2) a fixed position should not be maintained too long; (3) passive motion and massage should not be instituted too early.

Eleven cases were reported with eight perfect results out of nine cases, in which an additional fracture of the olecranon was not present.

Dr. Lawrence Scott, of Birmingham, gave an illustrated lecture on the application of the "Head-piece Plaster Jacket in the Treatment of Tubercular Spines." His paper related particularly to high dorsal and cervical foci. The results of treatment, as shown by the lantern slide projection, were interesting.

Dr. J. H. Carter, of Memphis, read a paper on "Extra Uterine

Pregnancy," and emphasized the necessity for an early diagnosis and prompt surgical intervention.

Dr. A. G. Jones, of Atlanta, read a paper, entitled "A Study of Forty-Eight Cases of Goiter."

Dr. E. Denegre Martin, of New Orleans, in a paper on "The Surgical Importance of the Breast," called especial attention to the importance of examination and early discovery of neoplasms. He advised the complete removal of these neoplasms in order to insure our patients against the dangers of cancer. Dr. Martin emphasized the following points:

(1) Prevent fissures by proper care of the nipples; (2) free drainage for abscesses of the breast; (3) in many cases cancer may be prevented by careful routine examinations.

Dr. J. M. Wilson, of Mobile, read a paper on "Cesarian Section," in which he advocated:

(1) Early diagnosis of cases requiring this procedure; (2) perfect asepsis in operation.

In discussing the subject the various operations were reviewed and compared.

At the conclusion of the last session of the section the following officers were elected for the ensuing year: Chairman, Dr. W. A. Bryan, Nashville; vice-chairman, Dr. P. C. Perry, Jacksonville; secretary, Dr. Isidore Cohn, New Orleans.

The Medical Section.

(Reported by Dr. J. T. Halsey, New Orleans.)

The meetings of this section were well attended and full of interest, and the reporter was struck with the large number of men who not only took part in the reading and discussion of papers, but who really had something worth while to say. As this report must necessarily be brief and the number of papers read was large, it will be impossible to refer to any except those which happened to especially interest and impress the writer.

Of course, the feature of the meeting was the address of the chairman, Dr. C. C. Bass, who presented the results of his investigations of the malarial organism, cultivated *in vitro*. His magic lantern colored pictures were a treat not only from the artistic but also from the medical point of view, and his modest but clear

description of his remarkable work aroused the greatest enthusiasm among his hearers.

Of the several papers in the symposium on malaria, that of Dr. von Esdorf, "A Preliminary Study of Malaria in Alabama," was distinctly the feature. His figures, incomplete as they are and necessarily not as accurate as one could wish, indicate a startling high incidence of this disease and conclusively demonstrate the necessity for a vigorous and concerted effort to eradicate this plague. Among other facts of importance brought out in this paper was the large number of apparently healthy individuals, in whose blood the plasmodia could be found. Another striking observation was the demonstration of the difficulty with which crescents could be driven from the blood. One such patient, in twenty-two days, took 800 grains of quinin sulfate in solution and still showed crescents, which disappeared only after 150 grains more had been taken in the course of the next five days. The other papers in this symposium were good ones, as was the discussion which followed. The writer has never before at any meeting heard so many men in general practice state their conviction that failure to examine the blood in cases suspected of malaria was to be condemned. Dr. Ross, of Jacksonville, and others, cited cases in infants and adults, in which the blood examination revealed the presence of malaria or its absence where the clinical diagnosis had been erroneous.

Capt. Craig's paper and that of Mason, of Birmingham, excited a lively discussion on the diagnosis and treatment of amebiasis, in which a large number of physicians from different States took part. From this discussion it was evident that those present all united in believing, first, that amebic dysentery is a widespread, common, and frequently unrecognized disease; second, that the diagnosis very often is to be made only by the microscope, and, third, that large doses of ipecac is the only treatment which will cure the great majority of cases. From this latter view only two of the speakers dissented, although Paulin, of Atlanta, reported two cases in which salvarsan had apparently exerted a markedly beneficial action, and Captain Craig, in closing the discussion, called attention to the good results reported from the subcutaneous and intravenous administration of emetin hydrochlorid.

Among the papers dealing with tuberculosis the writer was particularly interested in and favorably impressed by the paper of Morse, of Hendersonville, North Carolina, which was full of help-

ful suggestions as to "Individualizing the Tuberculous Patient," while Dr. S. T. Harris's (Highlands, North Carolina) paper on "The Relation of Gas Embolism to Production of Artificial Pneumothorax" was interesting, even though it appeared that his views as to the value of this method of treatment were somewhat too optimistic.

The papers in the symposium on syphilis, including that on "Some Economic Questions Related to Syphillis," by Dyer, of New Orleans, and the paper of Dowling, of New Orleans, on "The Hygienic Phase of Syphillis," were well worth hearing or reading. Litterer's (of Nashville) studies of the disappearance and reappearance of the Wassermann under different treatments were, to the writer, especially interesting, and are an example of the kind of work which is going to hasten the time when the exact value of salvarsan or neo-salvarsan will no longer be a matter of dispute.

From his studies he offers as tentative conclusions:

(1) From a serological standpoint, biniodid of mercury when injected intramuscularly gave the best results, but when given by mouth the worst.

(2) No great difference was noted in the behavior of the Wassermann after intramuscular and intravenous administration of salvarsan.

(3) Neo-salvarsan appears to be more efficacious than salvarsan.

(4) In the primary stage, before the Wassermann becomes positive, the repeated intravenous administration of salvarsan or neo-salvarsan gives promise of aborting the disease in a certain proportion of the cases.

(5) Serogically a combination of salvarsan and mercury is better than either by itself.

(6) The Wassermann reaction, as a guide in the treatment of syphillis is of paramount importance and is, in fact, the only means available for the control of this disease before its external manifestations appear.

In the various papers and discussions forming this symposium it was apparent that, with few exceptions, the speakers were all convinced that these new arsenical compounds are both valuable and indispensable in the treatment of this disease. Ballinger, of Atlanta, plead for the frequent repetition of their administration, advocating as many as four injections in the first month and, after a month of mercurial treatment, the giving of three more doses.

On the last day of the meeting Dr. Paulin, of Atlanta, reported a series of cases of typhus fever observed by him in the last two years, and called our attention to the probability that this disease was probably not so very infrequent, but was rarely recognized. His clinical reports and temperature charts certainly give food for thought, and the writer for one intends to "keep his eyes peeled" and to look out for such cases. In the discussion of this paper Bassett cited a case seen and recognized by him a couple of years ago.

Of the many other interesting papers read in the medical section only that of Dr. Colgin, of Waco, Texas, on vaccin therapy, and that of Dr. C. C. Green, of Houston, can be mentioned. The latter stated that in cases of epidemic cerebrospinal meningitis treated early with antitoxin serum the death rate was 20 per cent as contrasted with a death rate of 73 per cent in cases which did not receive the serum, and of 35.5 per cent in all cases treated with serum, many of which received it very late.

At one session of the Section on Hygiene and Preventive Medicine, attended by the writer, there was a very interesting discussion on the prevention of typhoid. Dr. Terry, the city health officer of Jacksonville, who seems to be a very live wire, reported an extraordinary decrease in typhoid, following the passage and enforcement of a "privy screening" ordinance, July 1910, the high point for that year showing 109 cases, while June, 1912, the high point for this year showed only 19 cases. The president of the South Carolina Board of Health told of the extensive use of the typhoid vaccins by his board, which last year distributed free of cost 16,000 ampules of this vaccin for use of other members of infected households. A number of the speakers at this meeting called the medical profession to account for failure to do their duty in checking the spread of typhoid, among these was Dr. Boyd, who stated that he had investigated 61 cases in regard to this point and had found that in only 38 of these had any warning or instructions been given by the attending physicians, which would aid in preventing further infections.

The new officers for the Medical Section are as follows:

Chairman, Dr. G. E. Henson, Jacksonville; vice-chairman, Dr. Victor H. Bassett, Savannah; secretary, Dr. H. E. Mitchell, Birmingham.

Note on Ophthalmological Section.

The officers of this section for the coming year are as follows: Chairman, Dr. U. S. Bird, of Tampa, Florida; vice-chairman, Dr. Homer Dupuy, of New Orleans; secretary, Dr. W. S. Manning, of Jacksonville.

A Correction.

Dr. Robert A. Strong, wishes the following changes made in his article on "Mastitis from a Pediatric Standpoint," which appeared in the November Journal.

The corrections indicated in *italics* were typographical errors, for which the Journal expresses regret; other changes are in the original manuscript and are made at the author's request:

Page 360, line 3, to read, "that rendered the diagnosis at first."
Page 360, line 20, to read, "since birth."
Page 363, line 21, to read, "as well as *all* other lymph nodes."
Page 363, line 31, to read, "were firm and plump and their movements."
Page 365, line 20, to read, "*respective* symptoms."
Page 366, line 3, to read, "*propulsive* in character."
Page 366, line 38, to read, "if we do *wean* temporarily."
Page 368, line 16, to read, "with the belief that cow's milk will not agree."
Page 369, line 13, to read, "whole milk, 24 ounces."

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

Life Insurance Examinations.

Until now the check on life insurance examiners has rested with the medical directors of companies engaged in the business of life insurance, and their ability to determine risks has been largely derived from experience and from the study of actuarial deductions. Now it is not all that a graduate in medicine should assume that he has ability to examine for life insurance; he must be more or less trained to undertake this special field in medicine.

Formerly a perfunctory determination of certain anthropometric details, with medical side lines, answered for the examiner's report, but, nowadays, the qualified medical examiner must know and must do more than this. This is as it should be and the life insurance company has done much to determine both individual and community responsibility in healthfulness. The increase in life insurance has been steady, and it is common enough to find the man in most any walk of life who justifies the obligation he owes his family by engaging himself in a life insurance policy.

The findings of life insurance examinations has made the individual desire for a knowledge of one's physical condition a much more important factor than it was some years ago.

The time may come when life insurance companies, for their own advantage, may establish regular bureaus for the periodic examinations of their policy holders, so as to discover any disturbance in health with a view to remedying its occasion. The mutual advantage of such a plan would seem obvious; the policy holder would, especially in this manner, be encouraged to provoke a delay in the settlement of his policy, if carried on any other than the endowment plan.

At any rate, it would afford the policy holder the opportunity of a systematic method of taking care of himself.

Meantime the doctor engaged in life insurance work must qualify more and more and better for this field of work.

Medical schools of the better class already recognize the importance of qualifying their graduates for this sort of work, and it is only a question of time when systematic instruction in life insurance examination will have its fixed relation to the schedule in a medical college curriculum.

The broadening interest of life insurance companies in general economic questions, has necessitated the scientific training of the medical examiner in the first rank, and the opportunities for research work grows with the years.

Dr. Frederick Hoffman has recently *(Medical Record,* Sept. 7, 1912) presented a paper on this phase of life insurance, which must be of much interest to all engaged in this special work.

It needs small argument to admit his point of view when the life insurance company districts its insurance business and systematically excludes residents of certain districts from any privilege of life insurance and solely because of health conditions, known or unknown.

The whole scope of preventive medicine is involved and with the greater opportunities, the relation of the physician to life insurance must grow more and more important.

The whole matter of life insurance is one which interests all classes of society, and the medical side is, perhaps, the most important. At any rate, as the association of life insurance companies grows closer in relation to the State, the field of the life insurance examiner must in proportion become more and more interesting, and the responsibilities greater.

The American National Red Cross in Service.

The War Department has announced the status of the American Red Cross Organization in relation to the regular army in time of actual service, in a circular emanating from the office of the Surgeon General, under date of September 10, 1912.

In brief the new order contemplates incorporating the Red Cross in the Sanitary Service of the land forces, and the individuals in service will be subject to the regulations provided for by the International Red Cross Convention of 1906. The Red Cross per-

sonnel, except in cases of great emergency, will not serve at the front, but will be assigned to hospitals, hospital ships, and along lines of communication. No independent Red Cross hospitals will be permitted to aid and any established institutions in the charge of this society will be placed under regular military discipline.

Exact provision for the distribution of subsidiary corps of the society is outlined in the official bulletin and the service expected is stated in careful detail.

It is gratifying to see the co-ordination of this voluntary organization with the regular army forces and it means much in the equipment of the medical corps of the army, hitherto inadequately provided for.

The duties of the regular army surgeon are not reduced by such a plan, but his labor is saved in many particulars, especially if the Red Cross Society is maintained in its army relations with a view to a proper training to efficient service.

The medical corps in the Japanese army meant much more than any other unit in the army organization at the time of the contest with Russia, and the great armies of the world have ever since been taking notice.

The service of the Red Cross organization in modern times has been of wondrous aid to humanity, and the recognition afforded at this time by the National Congress, and its execution by the army authorities, is most opportune and most deserved.

The Charity Hospital Again.

The Louisiana State Medical Society went on record at its last meeting, in appointing a special committee to take up the ventilation and reorganization of the New Orleans Charity Hospital with the State authorities and with the Governor of the State.

That committee was supported in its endeavor by the action of the Orleans Parish Medical Society and by the Charity Hospital Alumni Association, both bodies, in turn, appointing committees to coöperate with the State Society in the object expressed.

The Visiting Staff of the Charity Hospital, more directly concerned than the other bodies, memorialized the Governor of the State, specifically calling for an investigation of the conditions at the hospital and emphasizing the indifference of the incumbent Board of Administrators in all matters of medical importance.

The daily press variously expressed views in the days of agitation, and while most of them mildly urged some need of change, there was no great enthusiasm over the conditions discussed as incompatible with modern institutions pretending to care for the sick.

Several months have elapsed, and as yet nothing has happened, and the conditions remain the same.

We are certain that some day the very momentum of progress will overtake the New Orleans Charity Hospital and will compel some revision in its system, but the Governor of the State owes it to the contingent of citizens represented by the State Medical Society to undertake some consideration of the Hospital with a view to comparing it with institutions of like pretensions in other places.

In the various suggestions publicly uttered, no attempt has been made to discount the things the Charity Hospital has done in the past, nor what may be the possibilities in the future; but, in spite of difference of opinion as to some of the essential things needed at the Charity Hospital, there prevails the opinion that a general change *in the system* is needed, so far as medical and surgical services are concerned.

The Governor of the State has a duty to perform, and we trust that his own sense of justice may be sufficiently aroused to lead him to an early study of hospital conditions, with a view to learning at first hand what is needed and how the needs may be satisfied.

That Faucet Again.

Our attention has been called to the provisions in the Sanitary Code of the Louisiana State Board of Health [Section 125 (6)] making it punishable for anyone to abuse the faucet or tap of a general utensil supplying water.

The Board of Health provision especially aims at protecting the outlet of public coolers and fountains from contamination by the mouth and with the excellent restriction covering the use of the common drinking cup, the Board of Health would seem to have exercised a more careful precaution in the matter.

The solution so far as drinking cups for individual use is in sight and the public is already educated to the personal cup, or to the many paper devices now on the market.

The last word, however, has not been uttered in the matter of the new "Sanitary" (sic!) drinking fountains, where it is no uncommon thing to see supposedly intelligent persons actually sucking the porcelain outlet of these modern commodities, instead of using the jet of water for drinking purposes. Renewed legislation may be needed, to protect the so-called sanitary drinking fountains unless these may be so devised as to prevent such abuses as above instanced —for, with their present construction, these fountains are far more ornamental than sanitary, unless everybody is educated to the proper mode of using them.

Louisiana State Medical Society Notes.

In Charge of Dr. L. R. DeBuys, Secretary, New Orleans.

Tangipahoa Parish Medical Society.—The twenty-second quarterly meeting of the Tangipahoa Parish Medical Society was held at Hammond, October 9, 1912, with the following members present: Drs. J. Glenn Smith, J. L. Le Noir, of Amite; Drs. A. F. Gates, A. R. Carter, E. L. McGehee and S. L. Powlett, of Hammond; Dr. J. M. Adams, of Roseland; Drs. J. L. Kopfler and W. T. Newman, of Independence; Drs. B. A. Ledbetter, W. W. Butterworth, L. R. De Buys and E. D. Martin, of New Orleans. Dr. Martin spoke on "Diagnosis of Gastric Trouble," Dr. Butterworth on "The Necessity of Urinary Analysis in Children," and Dr. De Buys on "Diseases of the Intestinal Tract in Children." Dr. Ledbetter addressed the meeting on "The Duty of the Louisiana State Medical Society." Following are the officers of the society: Dr. Glenn J. Smith, president; Dr. J. R. Johnson, vice-president; Dr. W. T. Newman, secretary-treasurer.

Livingston Parish Medical Society.—On October 22, 1912, Dr. B. A. Ledbetter, president of the Louisiana State Medical Society, accompanied by Dr. S. D. Porter, of New Orleans, and Drs. Charles McVea and L. G. Stirling, of Baton Rouge, attended a meeting of the physicians of Livingston Parish at Denham Springs, for the purpose of reorganizing the Parish Society, which had been inactive for a year or so. The meeting was a success and the following officers were elected: Dr. T. B. Odom, of French Settle-

ment, president; Dr. H. M. Faust, of Corbin, vice-president; Dr. Montgomery Williams, of Denham Springs, secretary-treasurer. The following constitute the balance of the membership: Drs. W. H. Bridges, of Weiss; J. M. Ehlert, of Springfield; George W. Mixon, of Walker; A. V. Gautreaux, of French Settlement; J. A. Minton, of Denham Springs. Addresses were made by Drs. Ledbetter, McVea and Porter, and Dr. George B. Adams, district director of the Hookworm Campaign. The next meeting will be held in Corbin on the second Saturday in December.

Notices.

Sections and Committees for 1912-1913.—Dr. B. A. Ledbetter, president of the Louisiana State Medical Society, has made the following appointments:

Section Chairmen.

Practice of Medicine and Therapeutics—Leon J. Menville, Houma.
Surgery and Anatomy—J. M. Batchelor, New Orleans.
Obstetrics and Gynecology—Thomas Ragan, Shreveport.
Genito-Urinary and Rectal Diseases—L. O. Clark, Lafayette.
Diseases of Children—Solon G. Wilson, New Orleans.
Eye, Ear, Nose and Throat—J. A. Caruthers, Baton Rouge.
Nervous and Mental Diseases and X-Ray and Electro-Therapeutics—A. Henriques, New Orleans.
Dermatology—J. Numa Roussel, New Orleans.
Physiology, Pathology and Bacteriology—A. A. Herold, Shreveport.
Tropical Medicine and Hygiene—Creighton Wellman, New Orleans.
Hygiene and Sanitary Science—Dr. Oscar Dowling.

Committees.

Publication—Dr. L. R. DeBuys, *ex-officio* Chairman.
Scientific Work—Dr. L. R. DeBuys, *ex-officio* Chairman.
Medical Education—Dr. J. P. O'Kelley, Chairman; Drs. I. I. Lemann and M. J. Magruder.
To Confer With the Press—A. B. Brown, New Orleans.
To Confer With Bar Association—F. W. Parham, New Orleans.
Public Policy and Legislation—Henry Dickson Bruns, Chairman, New Orleans; J. A. Danna, John Callan, E. J. Graner, C. A. Bahn, M. Feingold, H. N. Blum, R. W. Salter, A. B. Brown, W. H. Seemann, W. T. O'Reilly, E. S. Kelly, A. C. King, J. A. O'Hara, E. H. Walet, E. A. Robin, E. Denegre Martin, W. H. Reilly, George S. Bel, New Orleans; Oscar Dowling, Shreveport; Charles McVea, Baton Rouge; C. M. Menville, Houma; A. F. Barrow, St. Francisville.
Auxiliary to Committee on Public Policy and Legislation—E. M. Ellis, Crowley; L. B. Arceneaux, Church Point; M. R. Cushman, Dutchtown; A. A. Aucoin, Plattenville; P. E. Brahic, Plaucheville; W. A. Quirk, Evergreen; E. O. Edgerton, Arcadia; O. O. Hamner, Bienville; H. E. Atkins, Atkins; A. P. Crain, Shreveport; J. M. Bodenheimer, Shreveport; R. M. Penick, Shreveport; E. S. Craig, Jennings; M. V. Hargrove, Jr., Oakdale; A. J. Perkins, Lake Charles; O. A. Biggs, Graceland; H. S. Bennett, Jonesville; W. E. Adams, Homer; J. F. Simpson, Athens; C. H.

Burley, Monterey; E. Davies, Mansfield; H. J. Smart, Logansport; C. F. Duchein, E. O. Powers, J. L. Vialet, Baton Rouge; T. L. Mills, Jr., Lindsay; F. R. Bernard, Lake Providence; W. K. Evans, Stamboul; R. P. Jones, Clinton; E. M. Toler, Woodland; Y. Ardoin, Chataignier; John L. Denson, Crowville; H. B. Womble, Gilbert; E. H. Blackwood, Colfax; W. R. Boudreau, New Iberia; M. B. Tarleton, Jeanerette; H. A. King, New Iberia; G. A. Darcantel, White Castle; W. H. Wagley, Maringouin; A. E. Douglas, Chatham; R. W. Seay, Grand Isle; R. D. Voorhies, Lafayette; T. M. Butler, Trout; W. S. Harrell, Ruston; G. W. Gaines, Tallulah; O. M. Patterson, Bastrop; J. L. Kelly, Melrose; A. C. McLamore, Gahagan; R. H. Blackman, Monroe; C. Y. Seagle, Belair; L. E. Bergeron, Oscar; C. J. Gremillion, Alexandria; G. M. G. Stafford, Alexandria; W. L. Davis, Coushatta; J. M. Middleton, Many; C. M. Sitman, Greensburg; G. H. Jones, Lutcher; V. Lehmann, Hahnville; S. Montegut, Laplace; Paul Foster, Opelousas; L. Lazaro, Washington; V. W. Smith, Franklin; N. M. Hebert, Covington; J. R. Johnson, Amite; John G. Lilly, St. Joseph; A. J. Delcourt, Houma; C. A. Schilling, Abbeville; J. E. Pierce, Bogalusa; A. Longino, Minden; M. W. Levert, Brusly; J. C. Baskin, Mitchenor; R. S. Winn, Wilhelm; S. C. Fitz, Winnfield.

Medical News Items.

Gleanings from the Clinical Congress.—The third annual Clinical Congress of Surgeons of North America met in New York, November 11 to 15, 1912. With the statement that practically 25 per cent of women afflicted with a form of cancer peculiar to the sex can be cured permanently, if the disease is treated in its early stages, the Clinical Congress of Surgeons have taken steps to start a crusade of publicity throughout the country which, it is believed, will help largely to check the ravages of the usually fatal malady. A committee of five leading gynecologists of the United States has been appointed to begin the fight at once and to report at the next congress. This committee was instructed to write or have written articles to be published in the daily press and weekly or monthly magazines, as may prove most expedient in disseminating the information. The committee appointed is: Dr. Thomas S. Cullen, chairman, associate professor of gynecology at Johns Hopkins, Baltimore; Dr. Howard C. Taylor, of Columbia; Dr. C. Jeff Miller, of Tulane University, New Orleans; Dr. F. F. Simpson, one of the leading abdominal surgeons of Pittsburg, and Dr. E. C. Dudley, of Chicago. The congress had a most interesting exhibit, which was shown at Cornell Medical College. In a series of demonstrations, Prof. John Murlin showed a "headless cat" as the subject of physiological experiment. It was declared possible to keep headless cats

alive for several days if necessary. The purpose of the experiment is to study the reflexes of the nervous system.

Nurses Graduated.—The Touro Infirmary, New Orleans, held graduating exercises for the Training School for Nurses on October 26, 1912.

Tri-State Medical Society Meets.—The Arkansas, Texas and Louisiana Tri-State Association met in Shreveport on November 12-13, 1912.

Physicians' Illegible Prescriptions.—The Berlin correspondent of the *Journal of the A. M. A.* calls attention to the fact that one of the bad habits prevalent among physicians is the writing of illegible prescriptions. The Berlin police authorities have thought it necessary to call attention to this evil in a letter addressed to the Executive Committee of the Berlin Medical Chamber. In this letter it is noted that mistakes have occurred, due to the fact that pharmacists either could not read the prescriptions of physicians on account of the poor chirography, or else misunderstood them, and filled them incorrectly. It was also noted that physicians in increasing number fail to add explicit directions to their prescriptions, even in cases of active and poisonous remedies, and therefore they deprive the pharmacists of an important aid.

Important Public Health Question.—An important question affecting public health has been submitted to the Attorney General in connection with a general policy entered upon by the public health service to bring railroad cars, steamboats and railroad stations belonging to common carriers engaged in interstate commerce under the jurisdiction of the Federal health service. Since 1893 there has been a law giving to the public health service authority to investigate and enforce orders for sanitation in interstate commerce, but this law has been construed to comply only in malignant diseases epidemic, and not to infectious diseases, like typhoid and tuberculosis. In that phase of the functions of the health service the law has been practically a dead letter.

State Medical Board Examinations.—Thirty-three physicians and fifteen midwives passed their examinations before the Louisiana State Board of Medical Examiners, which took place November 4, 5 and 6. Incidentally, the list of physicians includes two women. They are Miss Carolina Mims and Mrs. Lydia E. Parmele. Of the

forty-nine applicants examined, the following were successful: Drs. W. F. Scott, M. Bradburn, W. P. Bradburn, Jr., A. K. Duncan, J. McKowen, C. S. Holbrook, W. C. Payne, A. M. Ames, P. Graffagnino, M. Wolf, C. L. Gaulden, E. S. Freeman, W. S. Hamilton, Jr., A. H. Sykes, R. P. Williams, H. P. Doles, F. M. Johns, J. T. Stocking, H. H. Vaughan, E. S. Little, Edward Day, R. R. Wilson, John S. Gibson, Miss Carolina Mims, M. L. Goff, J. H. Hemler, E. W. Scott, F. L. Irby, Mrs. Lydia E. Parmele, M. H. Phelps, E. D. Haysmer, C. W. Cummings, J. R. Langlinais. Of the twenty-eight applicants to practice midwifery in the State of Louisiana, fifteen were successful.

Lane Library Dedicated.—The Board of Trustees of the Leland Stanford, Jr., University announce the dedication of the Lane Medical Library of that institution on November 3, 1912.

The Southern Medical Association met in Jacksonville, Fla., November 12 to 14. A resolution introduced by Dr. Isadore Dyer, of New Orleans, was adopted urging Congress to create a commission for the investigation of malaria, with a view to recommending to the President and Congress such measures as will, in their adjustment, be most practically efficient in extirpating the disease. Dr. Stuart McGuire, of Richmond, Va., offered a resolution which condemns the practice of physicians referring their patients to certain specialists for expert treatment and receiving remuneration as a commission. Dr. A. W. Freeman, of Richmond, Va., was the author of a resolution appealing to the press of the country to aid the Medical Association in its efforts to educate the people in matters of hygiene and sanitation. The following Louisiana physicians attended this meeting: Dr. F. J. Mayer, Opelousas; Dr. Chas. McVea, Baton Rouge; Drs. J. B. Elliott, Jr., Homer Dupuy, A. W. Durel, S. K. Simon, Isidore Cohn, E. D. Martin, C. C. Bass, Isadore Dyer, M. Feingold, J. T. Halsey and Oscar Dowling, New Orleans.

Urological School Founded.—James B. Brady, of New York, financier and horseman, who was a recent patient at the Johns Hopkins Hospital, has presented that institution half a million dollars in appreciation of its work and for the extension of its activities. A building to be known as the James Buchanan Brady Urological Institute will be erected and equipped for the advancement of the science and practice of urology. So far as can be

ascertained, this will be the only institution of its kind in this country, and the third in the world.

The New Orleans Academy of Sciences held an inaugural meeting on November 12, at which addresses were presented by the newly-elected officers.

The October Issue of Pediatrics contains a paper giving a practical resumé of existing knowledge upon the modification of cow's milk as a substitute infant food. The author has made a comprehensive study of the subject, and dwells especially upon the value of cereal decoctions in the modification of cow's milk.

To Study Fractures of the Long Bones.—The American Surgical Association has appointed a committee consisting of Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntington, San Francisco, Cal.; John B. Walker, New York City; Edward Martin, Philadelphia, and John B. Roberts, chairman, 313 South Seventeenth Street, Philadelphia, to report on the operative and non-operative treatment of closed and open fractures of the long bones, and the value of radiography in the study of these injuries. Surgeons who have published papers relating to this subject within the last ten years will confer a favor by sending two reprints to the chairman of the committee. If no reprints are available, the titles and places of their publication are desired. All such information should be sent to the chairman, Dr. John B. Roberts, 313 South Seventeenth Street, Philadelphia.

Paralysis Seizes Esquimaux Babies.—Infantile paralysis has appeared among the Esquimaux of Alaska for the first time of which there is known record, and the Public Health Service is taking measures to stamp out the disease. Surgeon General Blue has ordered the Public Health Service officers in Alaska to investigate the probability of the disease being carried by stable flies.

New Disease Kills California Ducks.—California game ducks are dying by thousands of a disease new to sportsmen and scientists. The United States Bureau of Health finds that the symptoms resemble those of an epidemic on Great Salt Lake, on which it is estimated a million ducks died. In the last stages of the disease the birds seemed to be starved. They do not eat, and become so weak they can barely move.

Chair of Hebrew Established at Tulane.—At a recent meeting of the Board of Administrators of Tulane University, Dr. Rabbi

Max Heller was elected professor of Hebrew, a newly-established course to be added to the curriculum during the second term of the present session.

Studies Miss Helen Keller.—Dr. Vicente Llorente, physician to the Spanish royal household, has completed a two months' study of American methods of treating the deaf and dumb. He was sent to this country by the Queen of Spain to collect data regarding the training and education of Miss Helen Keller, with a view to adapting this in the bringing up of the young Prince, Don Jaime, the Queen's second child, who has been a deaf-mute from birth. Dr. Llorente returns to Spain full of enthusiasm regarding American scientific methods, and remarked upon leaving this country: "We have known you Americans as a great commercial people, but now we shall have to learn of you as a great nation of scientists. Of what you have done in science and research we have been profoundly ignorant."

Removals.—*Buffalo Medical Journal,* from 238 Delaware Avenue to 228 Sumner Street.

The *Medical Standard,* from 537 Dearborn Avenue, Chicago, to 536 Clark Street, Chicago.

The *Sei-I-Kwai Medical Journal,* from 11 Yavi Ya Cho Kiyobashi Ku, Tokyo, Japan, to Atago-cho, Shiba, Tokyo, Japan.

Dr. R. P. Jones, from Clinton, La., to Redmond Building, Baton Rouge, La.

Dr. Chas. D. Cupp, from Whitney, Texas, to 224 Walnut Street, New Orleans, La.

Dr. A. R. Bush, from Homer, La., to Lisbon, La.

Dr. Geo. A. Pennington, from Ponchatoula, La., to Madisonville, La.

Dr. A. E. Fisher, from Covington, La., to Choudrant, La.

Dr. M. S. Browning, from Grove, La., to Shangaloo, La.

Married.—Dr. Isaac T. Young, Jr., and Miss Lula Bernice Dunn, at Slaughter, La., on November 20, 1912.

Dr. B. M. McKoin and Miss Enid Dean, at Mer Rouge, La., on November 27, 1912.

Dr. D. E. Magee and Miss Nonie Pierce, at Sunny Hill, La., on November 28, 1912.

Died.—At Port Limon, Costa Rica, on October 10, 1912, Dr. Frederick Nash Ogden, ex-surgeon U. S. N.

At Homer, La., October 16, 1912, Dr. J. W. Day, a prominent physician of Homer, La.

On November 14, 1912, Hertha Amanda Lynch, daughter of Dr. Robert G. Lynch, of this city.

On November 11, 1912, Dr. Carlton Hunt Cammack, aged 36 years, well-known and appreciated as an ear and throat specialist of this city.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Diseases of the Ear, Nose and Throat, by WENDELL C. PHILLIPS, M. D. F. A. Davis & Co., Philadelphia.

Truly an American product by a true American, this work displays, by its frequent quotations from American authors and its copy of specially selected illustrations, the real work and worth of the American oto-laryngologist. Generously illustrated with accurate, well-executed cuts, modern and up to date, coupled with a text that is thoroughly descriptive, in which less attention is paid to pathology and more to treatment, both local and operative, this work may be looked upon as a combined textbook and operative surgery. The student and practicing oto-laryngologist will find pleasure in thus following his parallel conditions under study.

Special mention should be made of the chapter devoted to the influence of general diseases on the ear, nose and throat. This fills a great gap in previous works of this type, and, while not absolutely complete, it will be of special interest to the general practitioner and serve as a ready reference to the busy specialist. A formulary on the Throat Department of the Manhattan Eye and Ear Hospital is appended, and may be of service to many.

As a whole, the manner of arranging the subject-matter, the clean-cut character of the text and illustrations, the accurate and pleasant style of the author, bear the stamp of his individuality.

For both students and practicing oto-laryngologists this volume should occupy a place in the active part of their library. Author and publisher are to be congratulated on their presentation of this volume to the American doctor and specialist. R. C. LYNCH.

High Frequency Electric Currents in Medicine, by S. H. MONELL, M. D. Wm. R. Jenkins Company, New York.

This work is divided into four parts, as follows:

First. "The general consideration of electric currents of high frequency and high potentials, and the instruments and actions which make up the sum of their medical usefulness." This includes a definition and explanation of the current and of its medico-physiological properties.

Second. "World-wide clinical experience collected into compact testi-

mony," consisting mainly of clinical reports and of opinions, not always based on scientific evidence, and perhaps overenthusiastic.

Third. "The consideration of apparatus and principles of administration and dosage in high frequency treatments," probably the most useful part of the book.

Fourth. "The consideration of certain diseases and their external treatment by means of high frequency currents of electricity." According to this portion of the book, one could imagine that almost anything or everything should be treated by high frequency currents. C. C.

Diseases of the Genito-Urinary Organs and the Kidney, by Robert Holmes Greene, A. M., M. D., and Harlow Brooks, M. D. W. B. Saunders, Philadelphia and London, 1912.

This is the third edition of an excellent textbook which has been revised and enlarged. We have previously commended the book, and we can again conscientiously do so, as it is an eminently practical work, to which have been added only such new things as are really worth while.

Its 339 illustrations are drawn from various sources, but are well selected, while some are original. C. C.

An Essay on Hasheesh, by Victor Robinson. Medical Review of Reviews, New York, 1912.

A booklet full of instruction and interest, it contains more wit and humor than science. It considers the elusive drug from various viewpoints, ending with a clever and amusing account of an experiment with it by the author upon his own person. C. C.

The Practitioner's Visiting List. Lea & Febiger, New York and Philadelphia, 1913.

This annual visitor is presented in four styles—weekly, dated, for 30 patients; monthly, undated, for 120 patients; perpetual, undated, for 30 patients weekly; and undated, for 60 patients, and without preliminary data. It is gotten up in handsome style and contains the usual tables of remedies, and other data.

The Physician's Visiting List for 1913. P. Blakiston's Son & Co., Philadelphia.

Three editions are furnished—the regular, varying in size from 25 to 100 patients capacity; the perpetual, two sizes; and the monthly. It is complete as to tables and compact in arrangement, and bound in black leather, as usual.

The Medical Record Visiting List for 1913. Wm. Wood & Co., New York.

The amount of useful matter, in the way of tables and hints for emergencies, has been increased. The book is well devised and comprehensive, also free from advertising matter. It is bound in dark leather.

A Text-Book of Pathology for Students of Medicine, by J. George Adami, M. H., M. D., F. R. S., and John McCrae, M. D., M. R. C. P. (Lond.). Lea & Febiger, Philadelphia and New York.

It is a privilege to notice so masterly a work as the one in review, undertaken after years of experience have ripened the knowledge of the senior author, and presented with a maturity of consideration which only

men such as those who have made the book could have brought into its material construction.

There are many text-books on pathology, and of them a number worthy of commendation, but none can excel the present book.

In every feature thoroughly digested, with lucid presentation and comprehensive discussion of all questions related to the students' point of view, the only encomium must be "excellence."

The first part of the book is devoted to general pathology, and includes the known processes of pathologic change as well as the theories advanced and accepted. The second part deals with special pathology related to special organs and particular diseases.

The impress of the authors' individual methods is in evidence, but at no point sacrifices modern conceptions on that account.

The illustrations are numerous and clear, and these add much to the text.

The simplicity of definitions is a feature of this book, and in the chapter on tumors alone the reader is well paid for the perusal of the whole work, if there were no other reasons for reading it. No laboratory technic is essayed, the contents being rather arranged for collateral reading, authoritatively presenting the conclusions than indicating the steps of discovery.

Altogether a valued contribution to contemporaneous medical literature.

DYER.

Progressive Medicine, Quarterly Digest. Edited by HOBART AMORY HARE, M. D., and LEIGHTON F. APPLEMAN, M. D. Vol. XIV. No. 3. September, 1912. Lea & Febiger, Philadelphia and New York.

This number of this excellent review of medical science contains matter related to Diseases of the Thorax and its Viscera (Ewart); Dermatology and Syphilis (Gottheil); Obstetrics (Davis), and Diseases of the Nervous System (Spiller). In each section recent literature is abstracted in the more important contributions, and the usual interesting features of modern thought are presented. DYER.

What to Do in Cases of Poisoning, by WILLIAM MURRELL, M. D., F. R. C. P. Paul B. Hoeber, New York.

The eleventh edition of this valuable little book is before us—and with thorough revision, including the addition of new poisonous drugs. Not only are many suggestions of action in cases of poisoning afforded, but the writer of the book gives many data on the suspicious evidences leading to the sort of poison employed. A useful book for the physician to have for handy reference in case of need. DYER.

Laboratory Methods, with Especial Reference to the Needs of the General Practitioner, by B. G. R. WILLIAMS, M. D., assisted by E. G. C. WILLIAMS, M. D., with introduction by VICTOR C. VAUGHAN, M. D., LL.D. C. V. Mosby Company, St. Louis.

This book should satisfy its title as a ready guide to the simpler methods for the everyday use of the practitioner, now more and more qualified to do his own laboratory diagnosis. Aside from excellent descriptions of apparatus, this work gives the easy technic of most measures in which the general practitioner should be interested. The illustrations employed are practical, and many of them of original character. DYER.

Publications Received.

LEA & FEBIGER, New York and Philadelphia, 1912.

A Practical Treatise on Fractures and Dislocations, by Lewis A. Stimson, B. A., M. D., LL.D. Seventh edition, revised and enlarged.

Surgical Treatment, by Sir W. Watson Cheyne, C. B., D. Sc., LL.D., F. R. C. S., F. R. S., and F. F. Burghard, M. S., F. R. C. S. New edition, entirely revised, enlarged and rewritten, with the assistance of T. P. Legg, M. S., F. R. C. S., and Arthur Edmunds, M. S., F. R. C. S. Volume III: *Surgical Affection of the Joints, Head, Face and Spine.*

Infection and Immunity, by Chas. E. Simon, B. A., M. D.

A Manual of Auscultation and Percussion, by Austin Flint, M. D., LL.D. Sixth edition, revised and enlarged, by Haven Emerson, A. M., M. D.

The Practitioner's Visiting List, 1913.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1912.

A Text-Book on the Practice of Gynecology, by Wm. Easterly Ashton, M. D., LL.D.

The Text-Book of Obstetrics, by Barton Cooke Hirst, M. D. Seventh edition, revised and enlarged.

Diseases of the Stomach, Intestines and Pancreas, by Robert Coleman Kemp, M. D. Second edition, revised and enlarged.

Nutritional Physiology, by Percy Goldthwait Stiles, M. D.

The Surgical Clinics of John B. Murphy, M. D. October, 1912.

D. APPLETON & CO., New York and London, 1912.

Diseases of Children, by Benjamin Knox Rachford, M. D.

Pellagra, by Edward Jenner Wood, C. B., M. D.

PAUL B. HOEBER, New York, 1912.

The Hunterian Lectures on Colour-Vision and Colour-Blindness, by Prof. F. Eldridge-Green, M. D., F. R. C. S.

Man's Redemption of Man, by Wm. Osler, M. D.

WILLIAM WOOD & CO., New York, 1912.

State Board Examination—Questions and Answers—of the United States and Canada. Fourth edition.

The Medical Record Visiting List for 1913.

P. BLAKISTON'S SON & CO., Philadelphia, 1912.

The Physician's Visiting List for 1913.

C. V. MOSBY COMPANY, St. Louis, 1912.

Surgery and Diseases of the Mouth and Jaws, by Vibray Papin Blair, A. M., M. D.

F. A. DAVIS COMPANY, Philadelphia, 1912.

Text-Book of General and Special Pathology, by Henry T. Brooks, M. D.

FORBES & CO., Chicago, 1912.

Himself, by E. B. Lowry, M. D., and Richard J. Lambert, M. D.

E. B. TREAT & CO., New York, 1912.

New Aspects of Diabetes, by Prof. Dr. Carl Von Noorden.

Miscellaneous

Thirty-fifth Annual Report of the Board of Health of the State of New Jersey, 1911, and the *Report of the Bureau of Vital Statistics.* (State Gazette Publishing Company, Trenton, N. J.)

Anuario Medico Sud-Americano, 1912 Con Su Suplemento Hasta Agosto. (Puccio y Muhlrad, Editores, Buenos Aires.)

Public Health Reports, Volume XXVII, Nos. 41, 42, 43 and 44. (Washington Government Printing Office, 1912.)

The Judicial Recall—A Fallacy Repugnant to Constitutional Government, by Rome G. Brown. (Washington Government Printing Office, 1912.)

Sanitary Code, State of Louisiana, 1911. (Chronicle Publishing Company, Alexandria, La., 1912.)

Forty-fourth Annual Report of the Secretary of State on the Registration of Births, Deaths, Marriages and Divorces in Michigan for the Year 1910.

Pennsylvania Health Bulletin. (C. E. Aughbach, Harrisburg, Pa., 1912.)

Reprints.

Intestinal Stasis in Relation to Cancer Etiology and Prophylaxis; The De Keating-Hart Method of Fulguration and Thermo-Radiotherapy, by Wm. Seaman Bainbridge, M. D., Sc. D.

Coryza et Gymnastique Respiratoire, par le docteur Marcel Natier.

The State Institutions, and Some of Their Problems Which Medical Men May Help to Solve, by A. L. Bowen.

Iodin, by Wm. A. Boyd, B. S., M. D.

Radium in Gynecological Conditions, by Dr. Wm. H. Aikins, in collaboration with F. C. Harrison, B. A., M. D.

The Sanitary Organization of the Isthmian Canal as it Bears Upon Anti-Malarial Work, by Col. Wm. C. Gorgas.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
For October, 1912.

Cause.	White	Colored	Total
Typhoid Fever	1	1	2
Intermittent Fever (Malarial Cachexia)	2	1	3
Smallpox	------	------	------
Measles	------	------	------
Scarlet Fever	------	------	------
Whooping Cough	------	1	1
Diphtheria and Croup	14	4	18
Influenza	1	------	1
Cholera Nostras	------	------	------
Pyemia and Septicemia	------	------	------
Tuberculosis	43	36	79
Cancer	18	9	27
Rheumatism and Gout	------	------	------
Diabetes	3	1	4
Alcoholism	------	------	------
Encephalitis and Meningitis	1	1	2
Locomotor Ataxia	------	1	1
Congestion, Hemorrhage and Softening of Brain	20	7	27
Paralysis	3	2	5
Convulsions of Infancy	4	1	5
Other Diseases of Infancy	4	5	9
Tetanus	1	4	5
Other Nervous Diseases	4	4	8
Heart Diseases	60	50	110
Bronchitis	3	------	3
Pneumonia and Broncho Pneumonia	14	6	20
Other Respiratory Diseases	3	2	5
Ulcer of Stomach	2	2	4
Other Diseases of the Stomach	3	6	9
Diarrhea, Dysentery and Enteritis	27	15	42
Hernia, Intestinal Obstruction	2	1	3
Cirrhosis of Liver	12	2	14
Other Diseases of the Liver	3	2	5
Simple Peritonitis	1	------	1
Appendicitis	3	3	6
Bright's Disease	35	37	72
Other Genito-Urinary Diseases	7	8	15
Puerperal Diseases	5	6	11
Senile Debility	3	4	7
Suicide	4	------	4
Injuries	14	15	29
All Other Causes	22	15	37
Toval	342	252	594

Still-born Children—White, 29; colored, 27; Total, 56.

Population of City (estimated)—White, 272,000; colored, 101,000 Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 15.08; colored, 29.94; Total, 19.11.

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

Mean atmospheric pressure 30.02
Mean temperature 72.6
Total precipitation ..... 2.47 inches
Prevailing direction of wind, northeast.

New Orleans Medical and Surgical Journal.

VOL. LXV. JANUARY, 1913 No. 7.

Original Articles.

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

The Elements of Dermatology.*

By ISADORE DYER, Ph. B., M. D., New Orleans, La.

The average observer of diseases of the skin is either impressed with the apparent difficulties in the way of a diagnosis or else calmly generalizes the evidences, and diagnoses the condition easily—but not always correctly.

The usual text carries so vast an amount of information that it is hard for the untrained to know just where to find the *pons asinorum* and to master it. It is with no pretension to hand out the master key that I am here presenting ideas, but rather with the belief that the way can be made easier through some suggestions learned by experience.

There is no field of medicine or surgery where Nature helps the intelligence as much as in skin diseases. The expert botanist can discover the family, species and variety of a plant from its first leaves—from its seed, even; but it requires, oftentimes, the full blossom for the ordinary intelligence. With skin diseases, the full

* Read at the November 6, 1912. Meeting of the Clarksdale and Six Counties Medical Association.

blossom is almost always in evidence, and, if taken on its merits, this blossom is capable of a complete analysis.

A noted pathologist once argued for several hours with me that it was impossible to diagnose leprosy without a laboratory proof, but you can understand that it was quite unlikely that he could see the clinical evidences through a microscope.

Again and again in teaching skin diseases I have noted the tendency of the student, and the doctor as well, to draw gross conclusions as to evidences presented to them, and a diagnosis was usually arrived at by an attempted comparison with some antecedent experience.

You may know a rose because you have seen many roses, but when it comes to flowers of obscurer types, the comparison falls, for the type is new, yet belonging to the same groups as others of familiar form.

Are there any elements in dermatology?

Can we reduce so large a subject to units and, acquiring the knowledge and relation of these, so readjust them as to comprehend the subject?

Let me digress for a few moments: Is it not the experience of many of you that a large number of skin diseases look alike—so much so that you unconsciously group them according to their color scheme, their anatomical relations to the body as a whole, or with reference to some implanted idea of skin diseases?

Is it not your experience, on the other hand, that the diagnosis of smallpox, measles, scarlet fever, syphilis, eczema, the itch and of a few other commoner diseases is based purely upon a vague or clear recollection of former experience with a similar disease? Is there any logic in this method? Is it not likely that your memory may be faulty?

How often may you change a diagnosis essentially wrong at the start?

What really constitutes a skin disease? A natural answer would be: any manifestation in or on the skin which alters its normal relations, in sensation, appearance or structure!

Is there any way of knowing that this manifestation is a skin disease? Most certainly, if the areas affected can be distinguished.

Is there any way of making this distinction? Yes, by careful examination and analysis of the part or parts affected.

Now, the human skin is just one large chart, divided into par-

ticular areas, each one of which is predilected for certain morbid evidences, some bearing small or few of such, while others carry a multitudinous variety, and each may be distinguished by its individual characteristics. By correlating the characteristics and evidences in the several areas involved, we may find differences in type; these differences in type make separate diseases and their varieties. According as there is a limited or general expression of evidences, the disease more exactly makes its type separate from others, and the particular way it determines its relations to the limited or general distribution fixes the variety.

But are we yet within the structural, elemental ideas of skin diseases?

Let us take any language by way of example and attempt to learn it on its merits; many *have* to do this.

WHERE DO WE BEGIN?

There are those who believe in memorizing phrases, swallowing words of all sorts undigested, laboriously working out sentences and idioms; but this is the long way and the wrong way.

Language is reducible to skeletal, structural ideas. The alphabet comes first, the roots next, syllables are then derived, and words follow. These, in turn, are qualified as parts of speech, which again occupy fixed relations to each other in a combination of several parts which comprise the sentence. A word may be intelligible when alone, but it has a wider meaning when combined with other words, each of which has its units of syllables, which in turn have their units of letters.

What is the alphabet in dermatology? That integral part of any evidence which gives to the part affected some difference in color, or consistency. According to the particular integer, there may be recognizable shape, and, therefore, also, distinct size.

We may premise here that no skin disease can be positively diagnosed until the integer of the eruption is known!

Why? Because this is the *expression of the change in the cell relation* to the skin itself, and it is the guide to the basis of the disease, and because, with the knowledge of the *unit of any skin disease*, we can build upon this an exact diagnosis.

It may be further stated that no two diseases of the skin present exactly the same combination of units, having identical characteristics in shape, size, color or consistency.

We may consider, then, the A. B. C's of dermatology as the

individual units which constitute each eruption, or evidence of altered cell relations in the skin.

Can we now use our skin alphabet in application to particular diseases, and of what profit is this application?

In older classifications, the unit was used as the basis of groups of skin diseases, the lesions or units being recognized as maculæ, papulæ, pomphi, tuberculæ, vesiculæ, bullæ, etc. With the broader field of study, and the more exact appreciation of the pathology of skin diseases, the nomenclature changed, and the relation of the lesions, or units, was made subsidiary in the terms used, but still maintained an important place as distinguishing groups and types in the new classes.

Every group of skin diseases has its cardinal or predominating unit lesion, or lesions, and these distinguish the particular group, or parts of the group, either by the difference in their type (macules, papules, tubercles, etc.) or in the characteristics of the individual unit itself in its differences of size, shape, color and consistency. In other words, there are macules, papules, tubercles, wheals, tumors, vesicles, bullæ, pustules, crusts, scales, excoriations, fissures, scars, ulcers, etc., which each present separate characteristics which not only distinguish each one of these from all the others, or from any one of the others, but which also distinguish macules from other macules, papules from other papules, and so on. Here the elemental qualities of size, color, shape and consistency make the distinction.

It is right here where difficulties arise in studying skin diseases in the same groups, but it is also just here that the importance of careful exclusion of the particular unit is at the highest. *The recognition of this is the key to the solution* of the diagnosis of skin diseases. Given the positive knowledge of the single lesion or unit, some exact basis of diagnosis is established.

The correlation of lesions makes the varieties in types, and as they are *"syllabled"* in twos, by threes or by more, the different aspects of one disease are shown, or a distinct variant in a group may occur. Often the very arrangement of the units will determine a different group. As the arrangement varies the type where the individual units are concerned, so the disposition of the units in a given arrangement, so far as the part of the body is concerned, makes the division of the vast number of skin diseases clearer. As this distribution may be irregular, regular, fixed, variable, symmet-

rical, bilateral, etc., the more exact knowledge of the habit of the particular disease is known and the rules of its relation to the parts of the body may be established.

Sometimes I feel that the elemental tone of this essay of mine may affront the intelligence of my audience, but again I realize that you know me well enough to understand that I am only aiming at clearing up the atmosphere from the cloud of embarrassment which attaches to the study of one of the fine arts in medicine. With one as long at skin diseases as I have been, to whom the expressions of Nature's plan should be so clearly manifest, to whom every unusual eruption offers the same interest as the new orchid to the enthusiastic botanist, any egotistic essay may be excused and condoned.

The ordinary text-book is so full of valuable information which needs digestion that if I can contribute a little to the preparation for such I feel it a duty performed. How satisfactory it should be to have a mental lever ready to open the secrets of disease, and if we can, even in a crude way, do this in some particular branch is it not something gained?

Malcolm Morris is right in saying that skin diseases cannot be pigeon-holed and drawn out on demand, but he is wrong in generalizing in this way.

All skin diseases should be *individualized,* for, while they *may* appear in classic form, the experience is contrariwise. The diagnosis in a particular case has often to be made upon small evidences, and it occasionally happens that the disease is against the rule in every one of its points of distribution, carrying only the unit of its lesion as a positive evidence.

With certain diseases this is especially true, and though the usual form may be that ordinarily described, the frequent exception is none the less the same disease.

With certain diseases, however, the relation of the unit is so exact that by this alone a diagnosis is positive.

We might go so far as to say that, with most skin diseases, the single lesion is distinctive, and this is true, with rare exceptions. The vesicle of smallpox has no similar; the papule of lichen planus is *sui generis;* the tubercle of leprosy is characteristic, so as to be recognized even when there is only one; the papule of purpura is distinctive, and the ulcer of epithelioma is classical.

Further, let any lesion establish a habit of correlation in any

given disease, and this form will always be the rule. Let us instance the grouping in herpes zoster; the clustering of the miliary syphilid; the annular appearance of ringworm; the crescents of the serpiginous tubercular syphilid, and the festoons of psoriasis, each true to the disease in which it is found.

We might take an alphabetic list of skin diseases and so define the predominant lesion of each as to make it separate from all others, but this would require the closest examination and the most particular study.

The fact that the general truth exists proves the necessity for close investigation of the integral parts of an eruption before a diagnosis can be sure. It is true that each disease, of the skin or of other organs, possesses a varied list of differential points in diagnosis, but where cardinal differences can be established at once why need we try the test of multiplying miscellaneous arguments?

We know that no confusion can arise between diseases like eczema and smallpox, yet many cases of smallpox go undiagnosed, and eczema is made to bear the burden of diagnosis for a multifarious assortment of conditions, many not even congener.

Elemental ideas of skin diseases are seldom taught, because the presumption prevails that every disease may be known on its gross merits, and in this errors arise, which are hard to combat. With diseases of the skin an exact analysis may and should be made, reducing the disease to its particular sites of relation to the human body, then relating the individual units to each other and to the separate areas involved. Where similar appearances prevail, a large idea of the disease may be obtained, and even where slight differences in the characteristics exist the comparison of the units will usually bear out the rule which applies to each.

The study of diseases of the skin has become of signal importance during the last twenty-five or thirty years. Before that, this branch of medicine was seldom taught, excepting as a minor and subsidiary division of surgery, and, as a matter of fact, some surgical texts used to carry one small chapter devoted to this group.

Of course, there have stood out, in the history of medicine, the names of individuals who have given special attention to cutaneous medicine and surgery, and the foundation of this branch must always rest with such men as Wilan, the older Hebra, Erasmus Wilson, Liveing, Cazenave, Rayer, Tilbury Fox, Kaposi, Duhring and Crocker. To these, of course, must be added the names of

more modern investigators and teachers who have worked hard to establish the art of dermatology as separated from the gross impressions of an unknown branch which seldom appealed to even the qualified practitioner and diagnostician.

Gradually the field of usefulness has expanded until in this division of medical science there are those who have become expert in particular groups of diseases, and laboratories have grown for the study of especial subjects.

The classification and nomenclature of diseases of the skin have been expanded, pruned and trimmed with each decade, and in almost every country, to accommodate the individual or collective views of those who have advanced the study of diseases of this group. There is yet no general classification acceptable to all dermatologists, for the pathologist in skin diseases urges his viewpoint as the basis of arrangement; the clinician favors the objective divisions, and there seems to be no middle ground.

The advances in the study of diseases of the skin have been due in large degree to the laboratory, and the exact knowledge of the origin, course and results of every type is being more and more elucidated because of this.

The fact remains that the qualified practitioner of medicine in the future must either set aside the possibility of sufficient general information to allow him to occupy his old position as a general practitioner and become the student of some special branch of medicine, or else the material which is accumulating in the special fields must be so prepared and digested as to be put before him in a way which is comprehensible. It is impossible, in the ordinary life or in the ordinary opportunity for study, for the average student of medicine, either before or after graduation, to acquire all the knowledge on every branch which the field of medicine comprises.

If simple guides may be derived, leading to the avenues of broader knowledge in the several branches, these will help materially to the desired end.

This, then, is the excuse for the present discursive essay at teaching the simple things in a branch usually neglected, or, at best, undervalued.

With the intention of acquiring essential ideas of any subject, the student must seek the easy way, and, as a child learns a graded subject, so the primitive elements in any subject must be gradually acquired. The chemical equivalents in any composite substance

must be familiar in order that they may be derived by analysis; it is not possible to syntheticise until the ability to analyze is acquired.

The same is true of all intricate subjects, and the molecular law obtains with morbid conditions of the skin as well as with organized nature in any other field.

Let us finally register a plea that in the future growth of our especial fields we may delay enough to watch the elemental ideas, and not hurry on to gross conclusions, which are usually built upon speculation, barren of rational fact and bereft of the intimate knowledge of the conditions under investigation.

Paratyphoid Cholecystitis With Report of a Case.*

By J. BIRNEY GUTHRIE, B. S., M. D., Professor of Clinical Medicine, Tulane University of Louisiana.

All the members of the colon group of bacilli may infect the bile passages, and may cause lesions which may immediately or finally demand surgical intervention. *Bacillus coli communis* and *Bacillus typhosus* have frequently been found in cases of infected gall-bladder on the operating table. Russell Cecil, in 1910,[1] reported a series of seven cases, one his own and six in the literature, in which gallstones were found at operation. But two of these cases were paratyphoid A. There are records of the isolation of various types of paratyphoid bacilli from bile taken post-mortem from gall-bladders which showed no pathological changes. All of these cases were of chronic infection, either giving a history of a previous attack of fever, or, as in Cecil's case, the recurrence of inflammation in the gallbladder which called for operation.

Besides the above-mentioned cases, my colleague, Dr. Randolph Lyons,[2] has reported a case of cholecystitis which followed three weeks after a fairly typical attack of paratyphoid of the febrile type. This required operation and drainage, and the diagnosis was made by finding *B. paratyphosus* A. in the bile at the time of operation.

Infection with B. typhosus or the various B. paratyphosi may exist in various organs without any previous history of continued fever causing local lesions. For example, Brown[3] has reported a case of typhoid cystitis without typhoid fever. Clinically we see

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these infections of two types, first, as blood infections, febrile in type, without localized symptoms and, second, as primarily gastro-intestinal in type, giving a picture resembling cholera from the first; their occurrence anywhere in an infection of the blood is possible. The gallbladder may become involved either through the blood, from the liver, or through the common bile duct and cystic duct.

The only cases recorded so far as I can ascertain, presenting at the outset, distinct symptoms referable to the gallbladder, are reported by Fürstner[4]. Fürstner reports three cases occurring in one household, two of whom, mother and son, both showed severe pain over the gallbladder, which he explains as probably due to the passage of bacilli (B. paratyphosus B) through the bile passages. Both cases recovered. The diagnosis depended upon agglutination of the patients' blood with stock cultures of B. paratyphosus B. and agglutination of a paratyphoid B. serum with cultures recovered from the stools, in high dilutions.

I have had the opportunity of studying the following case:

A. E.; white; aged 15½ years; well-grown youth; weight 117 pounds. Taken sick during night of March 24, 1911, with sudden and severe pain in right hypochondriac region. Temperature, 102.8°. His sister I had attended previously through a febrile attack lasting fourteen days and accompanied by slight bronchitis and slight pains in limbs. She had been convalescent about ten days when the boy was taken sick. The blood reactions, in her case—cultures, counts, smears and agglutinations—were repeatedly negative. She had a slight roseola. Her spleen was not palpable. The boy gave no history of a continued fever nor of any gastro-intestinal attack. He had recovered from tetanus six years previously, and had himself performed a reduction cure during the summer of 1910, reducing his weight from 165 to 118 pounds without anything more than slight resultant weakness. When first seen by me (morning of March 25, 1911) the temperature was 100° and pulse 110. Perfectly well the day previous. He was free from pain, but showed tenderness under ninth right costal cartilage, and distinct rigidity of abdominal muscles of right side, most marked in upper quadrant. There was no jaundice, nausea or vomiting. Temperature declined to 99° on third day, after mild saline purgation, and tenderness and rigidity diminished steadily with ice bag over the gallbladder region. Temperature remained the same, 99°; pulse 100, for thirty-six hours, until the morning of March 27, fourth day of disease, when it rose to 102.3°. March 30, seventh day of the disease, the temperature reached its maximum of 104.5°, with pulse of 100. Several leucocyte counts made during this early period averaged 3,500. Blood cultures, negative; urine, negative. Tenderness over gallbladder had disappeared completely and the rigidity had very much diminished. Just at this time, March 30, Dr. Matas saw the case with me, and found no indication for surgical interference. April 1, 1911, spleen, palpable. April 2, the tenth day of the illness, there appeared over trunk and legs, anteriorily, a marked roseola, which lasted about a week. From April 2 to April 13 there was an oscillating temperature, sometimes as great as 5°. April 7, morning, 97°; afternoon, 102°. April 14 (twenty-second day of illness), the evening tempera-

ture remained two-tenths of a degree below normal, and the patient made an uneventful recovery.

At no time was there cough, diarrhea, or hemorrhage. Slight tympanites occurred twice, immediately relieved by enema of soap suds and asafetida. Slight restlessness required use of cold pack. Sponging for twenty minutes every four hours was carried on during period of highest temperature. A diet containing 65 calories per kilo was well assimilated and the patient lost no weight during the illness. Hexamethylenamin was given in large draughts of water, 30 grains daily during the first ten days. Besides these measures no medicine of any kind was used.

The diagnosis, although clinically one of the typhoid infections, was confirmed by a positive agglutination obtained after the eleventh day with a stock culture of B. paratyphosus A. in a dilution of 1-100 microscopically, in 15 minutes. The same test with B. typhosus and B. paratyphosus B. were negative. I made no attempt to isolate the organism from the stools.

In view of the recent illness of the patient's sister, the leucopenia, the roseola, continued fever for twenty-one days, with the agglutination with B. paratyphosus A., it seems logical to call this a case of paratyphoid infection. Except for the very acute and sudden onset with distinct symptoms referable to the gallbladder, the case would hardly be worth reporting; but considered along with Fürstner's cases where he had distinct pain in that region in two cases of B. paratyphosus B. infection of febrile type, the writer is of the opinion that in this case, as in the two of the other organism, there was an acute infection of the gallbladder with recovery without artificial drainage. The recovery was even more prompt than in the cholecystitis, which is so frequently the cause of continued fever after infections with B. typhosus, and which prolongs the febrile period weeks beyond the usual course.

Certainly the subsequent course of the case, the subsidence of all symptoms of gallbladder disease and the excellent health enjoyed by patient since, justifies the expectant plan of treatment carried out. It is needless to say, however, that were these symptoms to recur or the digestive history of the next few years to suggest the persistence of infection, operation would be necessary. However, the surgical dictum adhered to by many, to drain every gallbladder at once which shows signs of acute disease would have led to a needless operation here.

I have cited the case, the only one so far as I can learn in the literature, diagnosed acute paratyphoid A cholecystitis which went to recovery without operation, because I believe there are many more such cases, and their existence should be borne in mind when the question of deciding upon operation or not arises. I believe that we are safe in postponing operation indefinitely if the fever, tenderness and rigidity disappear, and if no subsequent digestive or other symptoms result, or the patient is not a carrier. This is in opposition to the opinion of some pathologists, that there is no such thing as spontaneous recovery of a gallbladder infected with B. typhosus or kindred organisms.

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DISCUSSION ON DR. GUTHRIE'S PAPER.

DR. RANDOLPH LYONS, New Orleans: I think one of the reasons why the paratyphoid infections in this country have usually given rise to so few complications is due to the fact that the paratyphoid cases common in this country belong to group "A," which is very mild as compared with the typhoid bacillus, and less toxic than group "B," and according to a large number of statistics gives rise to but few complications.

DR. ISAAC IVAN LEMANN, New Orleans: Dr. Guthrie has only hinted at one point to which I desire to refer, and that is, whether such cases as these may not be the source of spreading epidemics of paratyphoid, or epidemics of typhoid in cases of men with typhoid infection masquerading under the picture of gallbladder trouble. I think it explains why there has been apparently spontaneous outbreaks of mild typhoid cases without any previous typhoid cases having existed. Such cases as these, in which apparently there is gallbladder trouble, might give rise to other cases which have no gallbladder symptoms whatever.

DR. J. B. GUTHRIE, New Orleans (closing the discussion): From the standpoint of public health, it is not nearly so important

to locate the carriers of paratyphoid as are those of typhoid. There are a number of lower animals which can and do carry some of the strains of the bacillus paratyphosus in their intestines, and carry them normally. I came across a number of reports on animals which had been investigated as to the bacterial content of the bowel, and it has been determined that there are some individual animals, not any particular species, which can carry paratyphoid and carry it in the bowel. I believe these are strains of paratyphosus B. I do not believe the strains of para-bacillus A have been determined in the bowels of animals normally. I do not think there is any doubt, from a clinical standpoint of evidence of gallbladder infection in this particular case, but if I had the work to do over again I should include investigation of the stools.

Dietetics, Simplified for the General Practitioner.*

By F. E. LAMOTHE, M. D., New Orleans.

The object of this paper is not to state anything new or startling, but to present some of the known scientific facts in such form that the busy country practitioner can use them without special preparation or study.

Dietetics is as exact a science as materia medica, yet so little has the average medical man studied it that he is unable to prescribe even the most ordinary diet.

Vast and valuable researches and experiments have been made to determine the digestibility of foods. but, as yet, all that has been done is to find out the length of time that certain foods remain in the stomach and the kind and quality of the gastric juice. We all know that stomach digestion is only a small part of the whole, and that it varies in different individuals.

Intestinal and pancreatic digestion is as clear as ink to most of us. I do not mean to say that we know nothing of what should take place, but that we know very little of what does take place in the bodies of our individual patients. For, to have even the faintest idea, we must know not only what our patient eats, but how much of each food. This requires the prescribing of a quantitative diet, and how many of us make even an attempt at that?

The nearest approach to quantitative diet prescribing that is

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

done is to tell a patient to eat meat only once a day, or, if it be a case of tuberculosis, to take a half or a dozen eggs and a quart or two of milk a day. In the first instance the patient cuts out the excess meat, but usually does not make up for that loss of nutriment by increasing the other foods, and, therefore very often loses weight, a result not usually desired.

In the instance of the tuberculous case, even if the patient does take twelve eggs and a half gallon of milk, which is not likely, he gets only 2,100 calories, and soon the eggs nauseate him; he is unable to take all of them, but manages to force some of them down, and then the diet resolves itself into a forced feeding and forced starvation diet. It is a notable fact that patients placed on qualitative diets lose weight. How often do we hear patients tell us that doctor so-and-so dieted them and that they lost so many pounds?

The prescribing of diets is an odious task to most men, simply because they know that they are not able, or have not the time, to write out a correct diet. They feel that they are not doing themselves or their patients justice when they tell them not to eat fried foods, cabbage, beans, and pork, and say not another word about what they should eat. The doctor who walks into a hospital and prescribes either liquid, soft, light, or full diet for his patient, has but to inquire into the difference between these to see how much ignorance he is showing, and to know that such diets are wholly inadequate in the treatment of all diseases. The little slips, sent to us as advertising matter, stating what to eat and what not to eat in different diseases, are fair as to quality of diet, but we can form no idea as to the quantity or caloric value of the diet. Many a man will not prescribe a patent medicine, because he says that he does not prescribe anything that he does not know the contents of. Yet the same amount of harm may result from prescribing unknown diets as unknown drugs. This may sound exaggerated, but I assure you that it is not, for may we not shorten a nephritic's life by giving him too much or too little proteid? Are we not the cause of the sudden demise of a diabetic if we give him, or let him take, too much or too little carbohydrate? Were the time not limited, I could cite cases where the physician, while using drugs in the most scientific manner, lets the patient die for want of a proper diet.

Of course every one of us who has tried to diet a patient in a

conscientious manner, has made some patient's life not worth living by making him weigh every particle of food that he took; that is the other extreme.

Every physician knows or ought to know the pathology of the disease he is treating and from the pathology he ought to know what diet is needed just as he knows what drugs he is to use. One man to whom I made that remark, answered that he had not studied dietetics. You do not need to. You know that you should not put mechanically or chemically irritating food into an irritated stomach, that food that is easily digested and almost wholly absorbed is to be given in diarrhea; that foods that leave a large residue are useful in constipation; that the carbohydrates increase the sugar of the diabetic; that excessive proteids are harmful to the nephritic; that the under nourished require a larger amount of nourishment or more calories; that the reverse is true of the obese, and so on with every condition we treat.

What most of us do not know is the composition and caloric value of the different articles of diet, and we have not the time nor memories to learn them. Nor do we need them all. Even a list of the most common is burdensome to the memory and would require considerable study to master. Therefore, I believe that a diet list, which would save the doctor the necessity of learning the number of grams of protein, fats, carbohydrate, and alcohol, which would save him the trouble of remembering the different articles of food which would economize the time of writing the names of those things which are to be taken, and those which are not to be taken, and gave the caloric values, would be a boon to the man who has no time and who wishes to be honest with himself and his patients.

The diet list I have compiled does more than this. It has the articles of diet printed twice, once for the physician and again for the patient. Then there is a column of practical units, that is, the food is measured by a standard that is simple and practicable and saves the patient the trouble of weighing his food. These units are pints, glasses and tablespoonfuls, for liquids; tablespoonfuls, teaspoonfuls, numbers, as one egg, one banana, and a standard slice, which is ½ by 2 by 2 inches, or ¼ by 2 by 4 inches for solids. Then the number of grams, not the percentage, as in the textbooks, of protein, fats, carbohydrate, and alcohol, that a measure of the various articles contains, also the number of calories in the

measure. Next is a column for the number of measures to be taken in twenty-four hours, and spaces for calculations of these in twenty-four-hour quantities.

On the other side of the perforated line is a list containing the same articles of food and spaces allowed for the different meals and the hours at which they are to be taken, and finally a space for remarks as to cooking, and what substitutions are to be made, etc. This list is for the patient.

Below the first list is a space for the total quantity of carbohydrates, fats, protein, alcohol, and the total calories for twenty-four hours. There is also space for the total quantities of urine, urea, and sugar excreated in twenty-four hours, and for the weight and height of the patient. Below the patient's list is a description of how this list is to be used. On the reverse side of the physician's sheet is a table of ages and weights, from which the amount of calories can be calculated. Another table tells the number of calories per pound for a man at rest, light work, moderate, and hard work, also one for the number of calories to be given children at certain ages, and some general remarks on cooking, besides other useful information.

After using this slip two or three times, speed is acquired, so that in ten minutes at most the physician can hand his patient a diet which he knows to contain approximately, so many grams of protein fats, carbohydrate, and alcohol, and how many calories; just what quantity of each article and what and how much is taken at each meal and the time of the meals.

As patients believe that each case needs a particular diet, they will follow such a one, because they know that their diets have been figured out especially for them.

Many men buy electric wall plates or tables, X-ray machines, vibrators, etc., which require special study, expert handling and a great deal of time, and which are expensive, while they neglect dietetics, which costs nothing, gives better results, and is applicable to all cases, while their fancy machines can only be used occasionally. Financially it pays, too, for a patient is glad to pay for an extra consultation to get such a diet, because he knows that he is getting his money's worth.

Finally, because of the high cost of living, the newspapers are talking of foods, their composition and caloric values. The public is becoming acquainted with these and patients will be asking

questions and expecting diets figured on this basis, so that if not now, then later, the general practitioner will be forced to prescribe intelligently.

Diet lists such as I have passed around can be had at very little cost. If there is no printer in your town these slips or modified ones can be had from Hauser's printing establishment in Poydras Street.

TABLE 1.

Height.	Weight.
4 ft. 8 in...	80 lbs.
9 " ..	90 "
10 " ..	100 "
11 " ..	110 "
5 ft. 0 " ..	115 "
1 " ..	120 "
2 " ..	125 "
3 " ..	130 "
4 " ..	135 "
5 " ..	140 "
6 " ..	145 "
7 " ..	150 "
8 " ..	155 "
9 " ..	160 "
10 " ..	165 "
11 " ..	170 "
6 ft. 0 " ..	175 "
1 " ..	180 "
2 " ..	185 "
3 " ..	190 "

TABLE 2.

CHILDREN.

Age.	Weights lbs.	Calories per lb.
6 months ...	7-15	45 to 35
6 to 12 mos..	15-20	35
2 years	30	35
3 years	35	35
5 years	40	35
8 years	50	28
12 years	75	23

TABLE 5.

AVERAGE MAN REQUIRES IN 24 HOURS.

	Proteids	Fats	Carbohydrates
Minimum.	60	0	80
Maximum.	125	150	500

TABLE 3.

AN ADULT MEDIUM HEIGHT REQUIRES IN 24 HOURS.

	Calories. Male.	Females.
At rest.	2000	1500
At light work	2500	2000
At moderate work.	3000	2500
At hard work	4000	3500

TABLE 4.

AN ADULT MEDIUM HEIGHT REQUIRES IN 24 HOURS.

	Calories per lb. weight.
At rest.	14-16
Light work	16-18
Moderate work	18-20
Hard work	25-30

TABLE 1.—A variation of 10% either way would make very little difference to the health of the individual.

TABLE 2.—This table is put in more as a source of information than for any other reason, but may help when diet is for a child over five years old.

TABLE 3.—The figures given are average, and must not be considered iron-bound rules.

TABLE 5.—If a minimum or below of one foodstuff is used, total calories are to be made up of others. These values do not apply to certain diseases, as nephritis, when less proteids may be used, and diabetes, less carbohydrates.

DISCUSSION ON DR. LAMOTHE'S PAPER.

DR. J. B. GUTHRIE, New Orleans: In my opinion there is nothing more conducive to intelligently handling of cases of chronic diseases of metabolism than the education of a patient just along the lines that have been mentioned. Every minute of time you put in in instructing a patient in the whys and wherefores of diet, yields results in securing the co-operation of that patient. I do not know of any better scheme than the one Dr. Lamothe has gotten out. It is a little complicated, and that is the only criticism I would make of it. I have been in the habit of using a diet table somewhat similar, but made out on the basis of Irving

Fisher's one hundred calorie units. I explain to the patient what a calorie is, and give him a copy of the one hundred calorie portions, as Fisher estimated it for the ordinary foods in use. This plan was worked out five or seven years ago. This one hundred calorie portion scheme is especially adaptable to cases of diabetes where the patient is instructed as to his calorie needs, and he is given free choice as regards certain articles of food, and is required to put away a certain definite amount. Also in cases of tuberculosis I find it valuable to let the patient know what his minimum is, and require him to eat during the day in suitable form the quantity necessary to keep him up. A patient with a little instruction can easily master a scheme of this sort, particularly if he has a little above the ordinary intelligence. All of our schemes for diets fail ignominiously when it comes to a patient who lacks that intelligence. We suffer from this in our clinic and dispensary work.

DR. F. E. LAMOTHE, New Orleans (closing the discussion): I want to answer Dr. Guthrie's argument in regard to Irving Fisher's one hundred calorie table. I have consulted that table, and I have quite a number of his coefficients in my list. When the average patient is given a diet that is measured in ounces, he has only a sort of vague idea of what it means, and of how much his needs are, so that if a patient wants to eat an ounce of something he has to weigh it. If the doctor figures it out for him and says, "You take so many teaspoonfuls of butter, or so many slices of meat of certain dimentions, or you take so many teaspoonfuls of sugar," he understands it. It is easier to get along with patients in this way. For that reason the doctor can get the most ignorant patient to take a quantitative diet if he makes it out for the patient. I never give a patient a list with the calories on. I keep that for myself.

Recurrent Vomiting.*

By J. A. STORCK, M. Ph., M. D., New Orleans.

It is not my purpose to read an exhaustive paper on the subject of recurrent, or so-called, cyclic vomiting, but to review my own experience, embracing twenty cases during the past thirty months. I desire to stress two points. The first relates to the presence of oxybutyric acid, diacetic acid, and acetone in the urine of a great

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

majority of these patients; thereby constituting, as it were, an important point in their diagnosis.

To the best of my information, Marfan deserves the credit of first mentioning the probable association of so-called acid intoxications with recurrent vomiting. But according to Edsall, he wrongly attributed the cause to acetone; for, it is doubtful if acetone, as such, is ever eliminated from the human body, but results from the oxidation of diacetic acid. Marfan, at any rate, was in the main on the right path, as we see it. To Dr. Edsall, our guest at this meeting, is due the greater part of our information regarding the presence of oxybutyric and diacetic acids in the urine of this class of patients.

The other point I wish to emphasize is that relating to treatment. Again, I desire to give full credit, if I am rightly informed, to our honored guest, Dr. Edsall, for his suggestion for the use of bicarbonate of sodium in the prophylaxis and treatment of this condition.

Judging from my own experience, recurrent vomiting is not infrequent, for, although my practise among children is not large, nevertheless I have observed twenty cases in the past thirty months. The ages ranged from twenty-eight months to fourteen years. The greatest number of cases, fourteen, occurred between the ages of four and eleven years, four occurring above and two under this period. Nervous phenomena were well marked in sixteen of the cases, ten of which were girls. All except four of these cases were from so-called neurotic families, one or both of the parents coming under this designation. In two among the elder children, the aura of epilepsy occurred at times. Among the neurotic cases, family histories of joint involvement were obtained, called by some of them rheumatism.

The parents of certain of these patients exhibited metacarpophalangeal involvement, which I classed as arthritis deformans. That vague condition, designated as uric acid diathesis, was also mentioned in a few instances.

Among the other patients of my series, in which there were no neurotic phenomena, either present or past, one case gave a history of some knee-joint disturbance. Positive evidences, or correct histories of syphilis were obtained in three instances from among the total number. Rigg's disease was found in five instances among three mothers and two fathers in this series of cases. Slightly en-

larged thyroid was discernible in the mothers of two of the girl patients. In three of the cases, more or less obscure histories of diabetes in the family were obtained. Previous histories of typhoid, malaria, scarlatina, pertussis, pneumonia, and diphtheria were obtained in six instances, some of the cases having had two or more of these diseases. Eight of the other cases gave histories of varicella, morbilli, parotiditis, or slight intestinal disturbance at some period.

Adenoids, or enlarged tonsils, were encountered in four of the cases, their removal seeming to lessen the attacks of vomiting. Appendicitis was carefully sought for, but never found. This was also true of disease of the gallbladder and the pancreas. In some few instances the attacks of vomiting were similar to those of migrain, which we sometimes see in adults. Six of the cases gave no history or showed any evidence of disease. For the most part these children were well nourished, the exceptions being in the very young, or, in some of the older children after the attacks of vomiting, when the attack had been prolonged. In only three of the cases was there evidence of malnutrition from other causes.

It might be well to remark that one or both of the parents of all my little patients were living at the time of my connection with the cases.

The urine for the most part was high-colored, of a sweetish odor, acid reaction, specific gravity 1018 or above, uric acid diminished.

The examination of the feces in fifteen of my cases gave no special information. Ova and parasites were found four times. The gastric secretion, vomit or otherwise, was examined one or more times in every case. The vomitus was examined in every case, and the tube was used in the interim between attacks in six cases in patients over ten years of age, with the following results:

All showed free H Cl.

In six the T. A. was between 70-80.

In twelve the T. A. was between 50-70.

In two the T. A. was between 25-50.

In a large percentage of my cases, the first and subsequent attacks were of sudden onset, the child being apparently in perfect health at the time, but in a small minority the attack was ushered in with some slight indisposition.

In the beginning of the attack, the child becomes listless, notic-

ing somewhat when aroused, but lapsing back into an apathetic state when left alone. Temperature at this period may be normal, or subnormal, or elevated to 100.5° F, but may rise to 104° F at height of attack.

Vomiting begins without warning, at first, consisting of the food or fluid contained in the stomach, later of gastric juice and occasionally of a little mucus. The attacks may occur several times a year or much oftener, and may last from several hours to a few days, the vomiting at times occurring as often as every fifteen minutes. After severe attack, the eyes become sunken, the tongue at times coated, the skin dry, and the abdomen retracted. Diarrhea was present in three of my cases, but constipation is the rule. Breath is often sweetish (so-called acetone breath); thirst is pronounced; urine is scant and high colored, and has sweetish odor (due to acetone).

At puberty the attacks lessen or altogether disappear.

Diagnosis:—In first attack, or when no history of previous attack is given, care must be exercised to exclude cord or brain disease by determining absence of Kernig's and Babinski's sign. Care should also be taken to exclude appendicitis. The diagnosis is most often arrived at by the exclusion of other diseases, by the history of the case, and by the detection of oxybutyric or diacetic acid in the urine.

Prognosis:—While the child, especially when not robust, becomes much prostrated, I have not seen a fatal termination.

Treatment:—Rest in bed in a cool dark room was advised during the attacks, also starvation for twenty-four hours, unless contra-indicated. After that time, if attack persisted, appropriate (peptonized milk) feeding by rectum was inaugurated.

As the thirst in this condition is great, normal saline solution by rectum was allowed, even during the first twenty-four hours of the attack. Drug medication per rectum was advised in all severe cases. In the event of lithemia, sodium salicylate, lithium carbonate, or aspirin was employed, if sodium bicarbonate did not appreciably lessen the attacks. Sodium bicarbonate was the main drug medication, and was given in large doses. Calomel was often given, and the colon was flushed in many of my cases. Symptoms were treated as they arose.

Prophylaxis:—Children subject to attacks of recurrent vomiting should be kept free of mental and physical fatigue and

excitement, should bathe regularly, live in the open all day, sleep in well ventilated room, and be properly clothed. While the diet should be mixed, carbohydrate food must be very much restricted. Sugar should not be allowed at all, but fruits, with the exception of berries and bananas, are permitted. The bowels should be properly regulated, calomel and pecac, and small doses of some alkali, preferably bicarbonate of sodium, should be given in the interim of the attacks.

In conclusion.—I want to emphasize the two main points of my paper: 1st. The presence of diacetic and oxybutyric acids and acetone in the urine of a large number of these cases. While I do not think these substances account for all cases, still their presence is a strong point in diagnosis.

2nd. The use of an alkali in the treatment, especially bicarbonate of sodium.

Finally.—The disease is probably due to some fault in digestion, or metabolism.

DISCUSSION ON DR. STORK'S PAPER.

DR. ISAAC IRWIN, Gibson: Two or three years ago my attention was called to acetonuria, and I found two or three cases in acute febrile cases. It is also stated by Nothnagel that typhoid patients develop acetonuria, and contrary to what Dr. Storck has said, it is due to a lack of carbohydrates and sugar in the diet. By giving them carbohydrate and sugar it will correct that condition. I am sure the cases I have found in children were febrile attacks.

DR. J. A. STORCK, New Orleans (closing the discussion): I have not found that to be true in egard to a lack of carbohydrates. When patients are on a mixed diet they have these attacks of recurrent vomiting.

Influenza: Gastro-Intestinal.*

By LEON J. MENVILLE, M. D., Houma, La.

Influenza in all of its phases has been so often discussed before medical societies, and in medical journals, that it is with a certain reluctance that I again bring up the subject, especially before such an august body of scientific men.

It is surprising, but nevertheless a fact, that we physicians look

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

upon influenza as a trivial disease. Why should we, is difficult to understand, when we are taught that it is an acute, endemic, epidemic, and often pandemic infection due to the bacillus of Pfeiffer, affecting the mucous membrane of the air passage, producing profound physical and mental depression and a tendency to serious pulmonary, gastro-intestinal and nervous complication (Anders).

We find that there was an epidemic which dates before the Christian era, an attack having occurred in the Athenian army in Sicily, 415 B. C. From then on to this day we have been having repeated epidemics, showing the highly infectious nature of the disease; in spite of this little regard is paid to prophylaxis.

If we desire to consider seriously the nature of this disease, together with some of its dreaded sequels, as pneumonia, tuberculosis, we shall soon realize that it is of so serious an import as to claim more than one-half of all human mortality.

Is this not sufficiently grave to give this disease more than a passing interest? At least to have the expression, "You simply have a case of grippe," relegated to ancient medicine.

We had in Terrebonne Parish during the months of January and February a mild epidemic of influenza of the gastro-intestinal type, often having as a complication the meningeal form. We had some hundred cases affecting infants and children mostly, although I had a case in a lady of eighty. William of London, in his book on diseases of children, says the gastro-intestinal type is perhaps less common in infancy and childhood than might be expected, judging from the liability of children to such affections. In our epidemic this was all to the contrary, as most of our cases were in infants and children. These cases were not restricted to any particular part of the parish, but were generally dispersed.

In the gastro-intestinal form of influenza, soon after the onset of the fever, the child begins to vomit, and the tongue is seen to be covered with a thick white fur or is red and irritable with enlarged papillæ. In some cases belonging to this type the symptoms are very severe; the temperature is high; the child cries with pain in the belly; is drowsy and somnolent, the hand and tongue being tremulous, and the whole aspect recalls typhoid fever. In other cases again, the typhoidal condition becomes established more slowly after an ordinary mild attack of the gastro-intestinal form. In many cases jaundice, enlarged spleen (and this, according to Osler, depends on the intensity of the temperature) were

present. Severe headaches and dizziness were often observed, accompanied with diarrhea of watery character, principally colitis in type, sometimes complicated by a marked tenesmus, the stool being diarrheal in character and often mixed with mucus and tinged with blood.

Dr. Ramon Guiteras, of New York, in the Pan-American Medical Congress of 1895, tells us that dysenteric symptoms of a very grave nature occasionally set in, causing death in a few hours.

This form of disease assumes the guise of a more or less severe catarrh of the gastro-enteric mucous membrane, with disturbance of the liver. The fever and the peculiar nervous depression were, however, the same as other forms. Cases likewise present themselves in which but little of the usual tendency to localization of the catarrhal process is to be observed; there is fever of varying intensity, with great depression, and simultaneously with equal implication of the head (meningitis), and the organ of the chest.

Cerebral form of influenza being present in some of my cases, made it of interest to me, inasmuch as at that time there was an epidemic of cerebro-spinal meningitis in Texas, and this made the cerebro-influenza cases rather suspicious to the laity.

As a matter of fact, I was asked by a sugar planter residing twenty miles in the country, to investigate the cause of death in some five children who had died suddenly, so he claimed. My investigation convinced me that they had died of gastro-intestinal influenza, complicated with cerebral-meningitis. There were at this time two infants sick, apparently with the same condition. I will mention these cases later.

Dr. R. Saundly, in *British Medical Journal*, June 6, 1908, discusses the chief clinical features of cerebral-influenza and the nature of the morbid process to which it is related. After citing a number of illustrative cases, he takes up the pathology of the disease, and summarizes the postmortem findings as follows: In some cases there is only congestion, in others, meningitis of the vortex or base, in others, again, acute hemorrhagic encephalitis, associated in certain instances with hemorrhage or red softening. Bacteriological examination either reveals no organisms, nor streptococci, Pfeiffer's bacilli, nor pneumococci.

It is not improbable that the meningococcus may cause some of the cases for there is evidence to show that the effect of the influenza poison is to rouse into activity any latent organisms and

to diminish constitutional resistance to their attacks. True cerebral influenza may cause first, a state of cerebral intoxication which passes off without doing serious damage. Next there are cases in which the poison causes intense and fatal congestion with minute meningeal hemorrhage.

The symptoms of cerebral-influenza are these: usually after a short period, ranging from one to four days, during which time the patient shows sign only of catarrh (and this may be wanting in some cases), he is seized with intense headache with or without vomiting, or neuralgia, or an epileptic fit, or aphasia. There may be preliminary period of restlessness, with or without delirium, in others, stupor or unconsciousness develops gradually or suddenly. There is usually fever, varying in amount. The muscles are often rigid, stiffness of the neck, opisthotonos, especially contraction of the masseters and trismus have been frequently noted. There may be twitching of the limbs, or clonic spasms of the head or extremities, disturbance of vision, inequality or irregularity of the pupils, paralysis of the sphincters, and tache-cerebrale. The reflexes are generally preserved and Kernig sign is never mentioned as having been present; Cheyne-Stoke's breathing is present.

It was during the epidemic of 1848 and 1849, that meningitis complicating influenza was clinically recognized, I say clinically, because the bacillus of influenza was only discovered by Pfeiffer in 1892.

Lumbar puncture serves two important parts in meningitis: first, as a therapeutic agent in relieving the symptoms of pressure, and secondly, as a valuable aid in diagnosing the various kinds of meningitis.

Dr. Slawyk *(Zeitschreift für Hygiene*, xxx 11, 1898) was the first to report the diagnosis of a case of influenza-meningitis by lumbar puncture, and Dr. Pfeiffer found the bacillus in pure culture. Influenzal-meningitis was produced in animals by injecting the cerebro-spinal fluid from a severe grip meningitis into their menings.

This is one of the cases of suspected cerebro-spinal meningitis I previously mentioned, which I saw at the instigation of the sugar planter:

Case I.—Is that of a girl two years old, who had always been well. Father, mother and one brother had at that time mild cases of influenza. She took sick suddenly on February 10, at 6 P. M., with vomiting and

copious watery evacuations, with intense pain in the abdomen, the child crying out with pain. She developed fever during the same night; she also had a slight cough for several days previous to my seeing her. I saw her the next morning at 9 A. M., February 11.

Physical Examination: She was well nourished and developed. With the exception of appearing weak, one would hardly have thought, from a casual examination, that she was seriously sick. She was perfectly clear mentally. The respiration was somewhat increased at this examination, due to my presence. She was also suffering intense pain at this time. At a subsequent examination, under more favorable conditions, the respiration slowed down, and upon closer examination I found a slight rigidity of the neck. The pupils were equal, and reacted to light. Outside of slight congestion of the throat there was no other patholigical condition. The ear-drums were normal; the tongue was moderately coated with a thick white fur, reddened and irritable; the heart was normal, and the lungs showed a mild bronchial condition; the abdomen was rigid and tender—in fact, the least weight placed on it seemed to elicit a cry of pain. The liver was slightly palpable, and the spleen was palpable. There was a slight twitching of the extremities. The following day the little patient had two convulsions, but no paralysis. The knee-jerks were equal and normal. Kernig's sign was absent. Temperature was 104° F.; pulse, 135; respiration, 32. Blood examination, 7,000 leucocytes, and lumbar puncture revealed a clear fluid.

Diagnosis: Many acute conditions must be thought of in a series of such symptoms—first, acute gastro-indigestion; second, pneumonia; third, otitis media; fourth, cerebro-spinal meningitis; fifth, influenza (gastro-intestinal).

The diagnosis of gastro-intestinal influenza, complicated with cerebral type, was based on the following facts: First, having at this time an epidemic of this disease in our midst; second, three other members of the family were attacked with influenza; third, pneumonia was ruled out on the relatively slow rate of respiration, as compared with the pulse, and no subsequent pulmonary development; fourth, otitis-media was ruled out easily on account of the ear-drums being normal; fifth, cerebro-spinal meningitis was ruled out on causes 1 and 2, also that there were no Kernig and Babinski sign present. Lumbar puncture did not show any turbid fluid. There was no increase in the number of leucocytes; sixth, acute gastric indigestion was eliminated on the ground that there were no previous attacks, no hurried and heavy supper, with excitement, also the fact that the parents were always very careful about her feeding, giving nothing but easily-digested food at all times. Free purgation did not relieve the condition. With the history of a cough, coupled with the other cases in the same family, and the existing epidemic in the parish, eliminating the other most probable diseases, I feel justified in having made the diagnosis of gastro-intestinal influenza, complicated with the cerebral type.

Subsequent clinical manifestations proved it to be as diagnosed, her older brother having developed a similar case.

CASE 2.—Infant, boy, aged three months. Mother and father healthy. Twin brother died on February 14, being sick only a day or two, without being seen by a physician. Could not find the exact cause of death in this case. My little patient took sick February 17, according to the parents; was similarly affected as the one who died. The mother says he began with a head cold, which settled on his lungs, after which he began to vomit, having frequent movements of the bowels, which were tinged with blood, crying out as if in intense agony. Temperature, 98° F. When I saw him, physical examination showed he was well developed, but seemingly poorly nourished and in a prostrated condition. The lungs showed nothing of interest, except as one would find in a case of bronchitis. The liver and the spleen were not palpable. Heart and ear-drums were normal. Breathing was somewhat exaggerated and laborious. Temperature, 97° F.;

pulse, weak and faintly perceptible. Stool was of a dysenteric character, tinged freely with blood. The vomit was of a greenish color, also tinged with blood (due to excessive vomiting). The abdomen was tense and rigid. No palpable tumor. He died the next day.

Upon investigation I found that there had been several cases in the vicinity who were sick in about the same way, though with no mortality.

I was called to another part of the parish about that time to see several members of a family who were sick with vomiting and purging as they termed it. I found six sick, from mother, age 43, to the baby, age 3 months, suffering with that complication. The only two in the family who escaped were the father and the son, though both were suffering at this time with respiratory form of influenza. All of the six sick in bed had developed a cough before beginning to vomit and purging.

Case No. 3 was one of these six, a girl, age 7, who was suddenly taken sick with vomiting and loose and watery stools, developing at this time fever 105° F. Except having had symptoms of la grippe, she had been otherwise healthy. I first saw her on January 25.

Physical Examination: She was small, muscular, and of good color, but very weak. She complained of pain in the head, with tenderness in the abdomen, and that only on pressure. She was at all times rational. Pupils equal and reacted to both light and to accommodation. There was no strabismus. Ear-drums and heart normal. The tongue was moist and red; the throat normal. There was some tenderness of the neck, but no rigidity. The spleen and liver were not palpable. The respiratory murmur and voice-sounds were slightly diminished in the lower left back, but not changed in character. Percussion of lungs brought out nothing abnormal. The knee-jerks were equal and lively. Both Babinski's and Kernig's signs were absent. Temperature was 105° F.; pulse, 110; respiration, 28. Bowels moved twenty times during the day, of a watery consistency. The history and the lack of physical signs are consistent with influenza. The prostration, with the development of the catarrhal symptoms, were important in arriving at a diagnosis of gastro-intestinal influenza.

The mortality during the epidemic was not great, only in the cerebral form and in the very young were there any deaths.

The gastro-intestinal type with its cerebral complication left with the respiratory form as mysteriously as it came. It left nothing in its wake but a few graves and a puzzling physician.

Discussion on the Paper of Dr. Menville.

Dr. D. O. Willis, Leesville: I want to say a few words in reference to this interesting paper. I have had three cases of a similar nature that were diagnosed as cases of influenza. It was before the epidemic of cerebro-spinal meningitis broke out, and two of my cases had cerebral symptoms as well as gastro-intestinal symptoms. The symptoms were very pronounced. One of them

especially had convulsions and was unconscious along toward the end of the illness. This patient was a little child. All three of the cases, died. Two of them, one a negro child, and the other an old lady, eighty-eight years of age, had the pronounced type of gastro-intestinal influenza. As Dr. Menville has said, the influenza was prevalent in the family. There were several cases of the disease in each family at the same time, which aided me in making the diagnosis.

I have been trying to do all I could to teach the danger of la grippe, but I find it is almost useless to try and educate them about it. The disease will start and go through the whole neighborhood, and seemingly you cannot get anyone to pay any attention to it from the standpoint of prophylaxis. They do not realize at all that it is contagious and infectious and is liable to become epidemic, but these people say, "I have got a little grip; I think I can get along without a doctor," and they generally do until they are almost dead. We have had a good many deaths on account of insufficient and late treatment.

The Advancement of Obstetrics, and Its Relation to Gynecology.*

By E. DENEGRE MARTIN, M. D., New Orleans.

As chairman of this section I have endeavored, with the kind assistance of willing contributors, to formulate a program which will interest the body rather than the individual. The majority of you do much of this work, no doubt, from necessity rather than from choice, and I know that you are able to keep abreast of the times only by attending such gatherings; for your busy lives and in many instances the scarcity of literature, prevents you from familiarizing yourselves with the rapid advancement in these branches. Though we have no authentic report on the subject, there is little doubt that the first obstetrician was a man. The specialty has always been practiced more particularly by women, but to man is due the credit of such artificial steps in the management of labor as became necessary as centuries wore on and disease and civilization weakened and deformed the female structures.

The introduction of forceps in the seventeenth century with the administration of anesthetics in the nineteenth was a great boon

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to suffering women, but none could compare to the advent of asepsis in the management of labor. We have a most potent lesson in this regard in our own hospital, as demonstrated by the work of Parham and Lee, a report of which is published in the New Orleans Medical and Surgical Journal, of January, 1888. By the use of antiseptics and the discipline practiced the mortality was reduced from 9.8% in the 51 cases delivered in the six months previous to antiseptic treatment, to .00 in the 44 cases delivered in the six months following its introduction. From that day to the present it has been almost unknown in that institution. Though common enough to-day, it may usually be traced to an avoidable source.

One of the most advanced steps in the management of labor in recent years has been the law requiring midwives to qualify. The standard of requirement is still much too low, but this standard will, no doubt, be raised as a better class of practitioners presents itself.

As an aid to diagnosis complicated with tumors, the X-Ray has proven most valuable. With the introduction of asepsis and the wonderful advance made in abdominal surgery, Cesarean section has been put upon the same place as other abdominal operations, and the method of delivering cases complicated with contracted pelvis, or dystocia from other causes, is being resorted to every day with excellent results and with far less danger to the life of mother and child. Any obstetrician who has attempted to drag a large fetal head through a small pelvic outlet, endangering the life of the child by pressure of the cranium, and subjecting the mother to danger of infection from lacerations (always difficult to repair under prolonged anesthesia), and who, on another occasion has done a Cesarean section for a similar condition, must, perforce, become an advocate of the latter method. Recent experience has taught us that the mother's condition is never a contra-indication when any other procedure is justifiable. In the hands of an experienced surgeon, Cesarean section is attended with far less shock and trauma than is the use of forceps in complicated cases. I am further convinced that this method will be resorted to more frequently in cases of placenta previa.

In a case brought to me some months ago, almost exsanguinated from uterine hemorrhage extending over a period of two months, in attempting to confirm the diagnosis of placenta previa, I was confronted with a hemorrhage which would have proved fatal under

much more favorable circumstances had I persisted in an attempt to empty the uterus by the vaginal route. Realizing that I was dealing with a condition that must be treated by heroic means, I decided to perform hysterectomy. Though this patient died as the result of an uncontrollable hemorrhage in the broad ligament, due to pathological changes in the tissues when the operation was almost completed, I was convinced of its practicability from the facility with which hemorrhage could be controlled and the uterus emptied. In this case we found a dead fetus undergoing decomposition and a partially detached placenta causing the hemorrhage.

Obstetrics and gynecology are as inseparable, in fact, as in name. The latter is so dependent upon the former that without its complications and results following delivery, the word gynecology would never have been coined and the favored gynecologist would still be unknown. As time wore on and civilization weakened the human system by its luxurious modes of living, and its social demands forbade the rearing of large families, the lack of physical development from the one source, and the evil consequences from the other, created the necessity for a new branch of medicine and the diseases of women assumed the most important role in surgery. to the pioneers, McDowell, Nathan, Smith, Marion Sims and others, great credit is due, for they worked under the most adverse circumstances.

Except for some mooted problems yet to be worked out, gynecology has almost reached a point of perfection in the last decade. Aseptic technic, however, has placed treatment well in advance of diagnosis. Are we not overdoing the former? I believe there is a tendency to over-correction; to unnecessary surgical intervention.

To the general practitioner must we look for better statistics; he must realize that upon him more than upon any one, depends the early recognition of abnormalities, especially of carcinoma of the uterus, so common to-day, and so frequently recognized when it has reached a stage too far advanced to hold out any hope of more than temporary relief, even from surgical intervention; so far our only means of treatment.

I believe that every woman should be examined at the menopause, and educated to know that this is always an important period in her life, not because it has been blamed for any little ailment she may suffer, but because the more dangerous diseases common to women are apt to occur about this period. In this examination

the breast should also be included. Women should be taught that unusual pains or unnatural vaginal discharges may mean more than a slight discomfort. I further believe that every cervical laceration as well as extensive perineal laceration should be repaired, the former particularly after the child bearing period. If this were the rule, our cancer statistics would be materially reduced and procidentia so common in old age, would be an unknown quantity.

I have made no effort to discuss in detail any of the suggestions herein offered. These will be discussed by those to follow, and if any important suggestions have been omitted, I have the satisfaction of knowing that they will be made, and their importance emphasized by the pioneer of this work in New Orleans, who has so generously accepted my invitation to be present here to-day. I esteem it a great privilege to have the pleasure of introducing to you the man who has probably done more gynecology and said less about it than any man in the South—our friend and teacher, Dr. Ernest Lewis.

Discussion on Dr. Denegre Martin's Paper.

Dr. Ernest S. Lewis, of New Orleans, La: I have listened with interest to the paper of Dr. Denegre Martin. As the writer states some progress has been made in recent years. This is especially noticeable in operative procedures. The rehabilitation of the Cesarean section was retarded by the memory of its appalling mortality in the past, and notwithstanding the brilliant achievements in abdominal surgery it is only in recent years its value has received full recognition in other than desperate conditions. In placenta previa centralis, deformities of the pelvis not incompatible with artificial delivery with high forceps, pubiotomy or embryotomy or eclampsia circumstances and environment favoring, better results have been obtained in proper hands than by the ordinary measures mimizing dangers to mother and child. The vaginal Cesarean is an invaluable means of effecting rapid delivery, whenever this is indicated in the interest of mother and child; as in eclampsia, rigid cervix, accidental hemorrhage, and many other conditions in which the shortening of labor is urgent. There is one fear to be apprehended that these operations may be employed to cover the lack of obstetrical skill wanting in the majority of our medical graduates. Obstetrical material is deficient in most of our schools to properly prepare the graduates in practical work. It must not also

be forgotten that the sequelæ of the Cesarean section are often serious, exposing to hernia or to spontaneous rupture in a subsequent pregnancy. With regard to the remarks of Dr. Martin on the care of women at the climacteric, I fully agree with him. The degenerative changes in the genital organs at the menopause favor the development of malignant disease.

Hemorrhages should be treated seriously and careful examinations made. It is only in the incipiency of uterine carcinoma permanent cures are affected; unfortunately, too often the condition is recognized when too far advanced for operation.

Dr. Thomas S. Cullen, Baltimore (by invitation): I did not expect to be called upon to take part in this discussion, and as I am down for a paper to-morrow, shall be very brief.

I was much interested in Dr. Martin's paper, and also in the discussion by Dr. Lewis. I agree with Dr. Lewis that obstetrics should be treated as an art. I think he has struck the keynote. There is nothing more important than the thorough teaching of students in obstetrics. There is no branch of medicine that they need more knowledge of than of obstetrics, particulary when they are engaged in general practice. When an emergency arises, frequently they are a long distance from their fellow practitioners, and they have to act immediately. If it happens to be a medical case, they can wait some time for consultation. If it happens to be a surgical case, it may not make much difference whether a few hours should elapse or not, unless it is a case of emergency, and a consultant can be called in. But in obstetric cases action has to be taken at once. The obstetrician should group his students in such a way that a certain number of men throughout the country are trained as expert obstetricians, and if they are trained as expert obstetricians, then they have very little time for anything else. I tried for several years to combine obstetrics with gynecology, but after I got through with two or three hard obstetric cases, when the surgical cases came on the next day I was not in proper condition to handle them.

There is another question that comes up, and if Dr. Martin will allow me, I will speak of it, and that is the relation of gynecology to general abdominal surgery. In a certain number of cases it is impossible to make an accurate diagnosis before the abdomen is opened; if in addition to the pelvic lesion I find some trouble in

the upper abdomen, a condition that was not suspected, and am only capable of handling lesions in the lower abdomen and close the incision without doing what is necessary in the upper abdomen, then it will be necessary later on for a general surgeon to open the abdomen a second time. So it really becomes an economic problem. When you open the abdomen you should be in a position to undertake anything that needs to be done in that abdomen, and you are not in a position to do that unless you do the work in the upper abdomen continually. It is easy to diagnose whether a certain condition exists in the abdomen or not, but it is absolutely impossible to tell, at times, where it is and what it is.

I agree with Dr. Lewis that students do not get enough obstetrics, and I think there should be a more intensive form of study in the obstetrical line. If a man is going to take up gynecology he should have a thorough training in general surgery, and before that a fundamental training in general medicine. If he is going into obstetrics, it is absolutely necessary for him to have a fundamental training in medicine, surgery and gynecology to make a thorough obstetrician.

Dr. E. Denegre Martin, New Orleans (closing the discussion): I regret that one of the papers on the program was not read, but I believe we have accomplished something this morning. In the past, little attention was given to obstetrics by students. In an experience which has extended over seventeen years, and in consultation work, I, since that time, realized that there was a great deal in obstetrics which should be brought to your notice. We have not attempted to teach obstetrics, but we have tried to call attention to some of the problems, and ask you, when you go home, to give them some thought. In my own paper I did not differentiate the conditions in which Cesarean section should be performed. Dr. Lewis did to some extent, but I think he has thrown a damper on the operation for the reason that he referred to some of the bad results. Prior to the days of aseptic surgery, I admit, it was not an operation to be performed except under the most extraordinary circumstances. Since that time the technic of the operation has been perfected. Prior to this it was faulty in many instances, and where a faulty technic existed, rupture sometimes occurred, due to the fact that the operators were not familiar with the technic, and being greatly frightened by its apparent magnitude from a

sudden rush of blood, were afraid to take a sufficient amount of time to close the uterine incision as they should have done. There is a case on record of women who have been delivered four times and three times in another, by the Cesarean route, showing that the operation is perfectly feasible. If the operation is performed, it depends upon conditions as to whether we should render the women sterile afterwards or not. If we find the operation is done for some condition which required it, as where we have a deformed pelvis or a dystocia that cannot be overcome, we should render the woman sterile. In placenta previa we must discriminate as to cases. There are cases in which it is safer to do the Cesarean operation than to deliver the woman by the vaginal route, especially if it is one of those cases where the woman wants the child saved. In a case of Cesarean section which I performed some time ago at the solicitation of the mother, she took as she thought the greater wish to save her child! I was able to save both mother and child. The operation to-day under aseptic methods has become one of election in certain conditions. But do not make the mistake that is being made of trying to fit your case to the operation. You must learn to fit the operation to the case. And Dr. Cullen has emphasized a point that I wish to emphasize again, that it is necessary, in order to be a good gynecologist, that you should be a good surgeon. One of the saddest predicaments is to get into the abdominal cavity, cut the ureter, and have to call for assistance to suture it. I have seen that happen. When we are operating to-day and have so many specialists, no man has a right to sew up a perineum unless he can remove the gallbladder, and no man has a right to pretend to be a gynecologist unless he is a surgeon, and the sooner we learn that, the better. The surgeon who goes into the abdomen and does not explore it thoroughly, provided it is not full of pus, is making a grave mistake, and it is a duty to the patient and to himself to do whatever is necessary to be done. I have followed this rule in my practice, and I care not whether the gall-bladder, the bladder, or appendix is at fault, everything is done that should be done, and I hope soon to see this custom followed in New Orleans in the future more than it has been in the past.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The New Year.

"If there were dreams to sell
What would you buy?
Some cost a passing bell;
Some a light sigh."

The spent hour, or day or year is ever full of regret, not so much over the fact that it has been spent as that it might have been spent better or differently. Each beginning of another year brings reflection over the one just gone and the proverbial good resolutions are cataloged for the coming days.

The new year comes at the wrong season. Hope is born with the birth of the living things, and while the mantle of winter is spread over the labors of a fruitful year it is hard to awaken from the dreams of what may be as well as of what has been and break into the prospect of an undue springtime of regeneration.

Fireside philosophy is mellow and rich in fantasies, but usually barren of fruition. As we open a new book there is the wonder of what its covers may contain and the anticipation is rich in its reach, but until the last page there is no review of what may happen. So with the new year; it is already full of dreams, and some of them are hard to read aright.

The minute brings a new discovery or strikes at the vital existence of a nation's peace; time weaves a tangled mass which only endeavor may make into a final scheme of usefulness. Meanwhile the struggle goes on and existence is won by labor and directed effort. In the turmoil of modern life, the medical profession and its work color largely the changing field of vision and in peace or war there is some place for a successful move.

We are trending towards an idealistic goal and our successes are knocking at the door of philanthropy and statecraft with so much growing force that the impress of genius is bound to create a new point of view regarding the medical profession.

The year to come promises much, and if it can build on the years gone by there will be new pages of history written in medicine.

The first scenes in the new act are soon to begin, and the players have no rôles, but as events move the stage will grow its motives and the achievements of genius will make the play.

With the growth of surgical skill, laboratory discovery and the application of both to the prevention of disease, the new year promises much.

We are traveling close to the discovery of the cause of cancer; the basis of the origin of consciousness is yielding more and more to the dissection by astute minds; the flora of the intestines is soon to be cataloged, and the relation to the functions of the body may be soon outlined. Longevity is on the way to reduction to a practical philosophy and the ductless glands are gradually assuming a most important office in the bureau of control of the human economy. Vice is already in the scope of medical study, and as the eugenical code grows, we may more and more officiate at the rites of crime obliteration by advanced procedure.

The martyrs to epidemic disease make the pursuit of these more active, and as the great heroes of modern sanitation are more and more rallied from the ranks of medical practice, the tribute of a rescued race may crown them with immortal glory.

The year must bring its changes, and as we grow into it, the need of championing our various causes will appear more and more and when the story of the year is ended we may write on every page *sic semper ad astra!*

Medical Education and the State.

At the beginning of a new year there are many problems in the medical field. Those of scientific importance are looking from the natural crystallization of a multitude of ideas all arising from the crucible of experience.

The psychology of medicine is just opening a vista of philosophic possibilities, among which there are practical ideas as well, and of these none is more imminent than the association of the medical profession and the public.

We have seen the gradual development of the importance of medicine in the state, and in spite of the sacrifices entailed the rank and file of the medical profesion have stood for the public

health above all other considerations. The reaction is ripe and the expression will depend largely upon the degree of education among those empowered to administer the law.

The medical view of life has entered into the economics of the people, and state after state has acknowledged this by enactments on the statute books covering the regulation of birth and death and disposing of the sanitary life of the public by just laws occasioning the respect for boards of health and their purposes.

The scope has grown until to-day foods and domestic relations so far as community life is concerned are regulated by limitations imposed for the protection of the majority. Within the purview fall institutions of all sorts, including schools and asylums, and even public carriers and conveyances are under sanitary control.

To make the administration more effective the medical profession has forced specific legislation regulating the standards for qualifications of intending practitioners and requiring a test of these by formulated examinations. The state, then, has assumed the control of the public health under the broad limitations of state medicine, and step by step every function of the physician is coming more and more under state supervision, direction and jurisdiction.

It is a wise outcome of an obvious necessity, and in time the obligation of the practitioner of medicine to the public health must be more and more defined, and the tendency is in this direction.

The interest of the public is evident in many ways, none more striking than the educational influences of the daily and periodical press, which engage in the discussion of all sorts of propaganda. The very antagonism to preventive medicine, shown in the organized opposition to vaccination and vivisection, has produced a reaction of widespread education, which has reached its highest expression in the allotment of the Nobel prize to Dr. Carel for notable experimental work, made possible only through vivisection.

As the knowledge of preventive medicine and its results have become widespread, the demand for their benefits has grown and the protection against epidemic disease has created a general desire for the benefits which follow the application of such knowledge.

More than this, the public is gradually reaching the degree of intelligent estimate of service in the practise of medicine which

makes for a more scientific standard among those who profess the high calling of a physician. Everywhere the state has concerned itself in these problems. One after another, state boards of health have undertaken the education of the public in matters which relate to the preservation of their health, and as time goes on the laboratories and other functions of health boards must reach out so as to study all questions of hygiene in which the future of each community is directly interested.

Meantime the obligation of the state has not been taxed, for most of the service rendered has been thoroughly altruistic and humanitarian, except so far as the officials under political appointment are concerned. All legislation has arisen from the energies and endeavors of medical men, bodies and associations, having no relation to the State, excepting as citizens of the commonwealth.

There are a few of the United States in which the direct control of health is in the hands of state medical associations; in fewer states still, the direction of health problems is under the supervision and direction of state universities, but in no state, as yet, has medical education, or the institutions affording such, any fixed relation to the state in matters of either health or policy.

The time must come when all institutions of eleemosynary character, dispensing systematic medical care, must be organized under a regular control, and the direct relation of medical education will be a factor.

If the state commands the regulation of health and thereby accepts the responsibility of such regulation, the entire qualification of those engaged in making the laws effective should be in the hands of the state, and if such control eventuates, then the state should bear, together with the burden of responsibility, the almost concomitant burden of support.

Medical colleges exist for the chief purpose of training physicians and surgeons for qualified service in the communities in which they may elect to live, but the further purpose of a medical college is the occupation of a position of reference for authoritative opinion on questions of academic or economic importance. In other words, the medical college must act as expert in the economics of the state related to all matters of medical significance. In time of epidemic or otherwise, the frequent occasion arises for such relation, and the staff and equipment of the college should be ready, in each state, to meet the emergency.

Now such service is rendered willingly, and out of the resources of the college, usually derived from private endowment, seldom large enough to go so far in its possibilities. The state should satisfy such need. Otherwise, the right of the state to either demand or ask such service is open to question.

More than this, the honorable existence of medical colleges in every state should be a matter of state concern, for it provides not only the material from which the health officers and their aides are selected, but it affords them the means of satisfying the growing demands for increased information of a scientific nature. In other words, the state regulates the health of the people; expects proper qualification of its officials; therefore, the state should provide for their preparation and for their continued usefulness by a properly supported college.

It is no longer a matter of conjecture that medical education is the most expensive of all forms of education; it is a matter of fact, at all schools sufficiently equipped to afford education of the right sort, that the expense of education of the individual student exceeds the maximum fees charged by over one hundred per cent. The future promises no reduction in such cost, and the success of a medical college in its essential purposes will stand or fall with the attitude of the state regarding its support.

Already, too, the further concern of the state in its relation to medical education, is finding its expression in the supervision of the state of the actual practice of medicine. Recently, in England, the question of state employed physicians for practise among the people, under state administration, has arisen. The question is not new. We have adverted to the topic more than once, and have even prophesied its arrival.

The public has a right to demand medical service, just as the public has a right to demand police protection, or fire protection, and in the newly organized commision form of government in the city of New Orleans, the Bureau of Public Safety has control of the Board of Health and its functions.

If we carry the idea further, the control and provision of medical attention to the poor should be under a Bureau of like power and purpose. Institutions of public health and charity should be administered under modern lines, and if positions could be assigned under competitive Civil Service rules, competent physicians could serve the state, with a properly adjusted compensation, where now their services are given, or demanded, gratis.

Already in many of the large cities in civilized countries municipal administration has undertaken the districting of the poorer communities in these cities, and have appointed municipal physicians, under pay, to attend to those needing such services. In London, particularly, such a practice has been established for now some time. By expanding the same plan, a full state and city staff of physicians could be organized for public service, without in any way affecting the office of the independent practitioner, deriving his livelihood from the well to do.

State and municipal institutions of research and of hygiene; provision for infectious diseases and their prevention, the care of the house confined sick among the poor, the administration (medically) of state and city proletarian institutions, the proper provision for emergency medical or surgical services, could all be administered in an effective and more humanitarian way.

All of this is within the state's obligation to state medicine, and by assuming a broad relation to medical education, it may come about.

In the waxing year before us, let us hope that some of these philosophies may become facts and that the crust of political parsimony may be broken by a wave of intelligent provision which will, at least, urge state interest in making of all phases of state medicine an active asset, needing to be brought more and more into operation for the good of the state, and, therefore, of the people.

Activity in the Charity Hospital Board.

The New Orleans newspapers under date of December 19, report a special meeting of the Board of Administrators of the Charity Hospital called for the purpose of conference with the executive committee of the visiting staff of that institution.

As reported, this meeting should be entirely satisfactory to the members of the organized medical profession in the State of Louisiana, as it evidences the intention of the Charity Hospital Board of Administrators to meet the first point of demand and request of the profession, in that a hospital expert is to be called to investigate the conditions of the Charity Hospital with a view to report upon

the same and with a view to submitting a plan of organization for that institution.

The presentation to the Charity Hospital Board by the representatives of the visiting staff is published elsewhere. This covers the argument for a systematized hospital management and attacks the present relation of the visiting staff, the patients and the resident house surgeon.

The attitude of the visiting staff through its representatives is exceedingly temperate and may be summed up in the request for the investigation by a qualified and recognized expert.

The conference between the hospital authorities and the representatives of the visiting staff is bound to open the way for a better understanding among all concerned in the administration and efficiency of the hospital and if the new board continues in its initial effort to co-ordinate the interest of the visiting staff and the administration, the result must redound to the great advantage of the chief interest concerned, viz: the patients themselves.

It is to be hoped that the Board of Administrators of the Charity Hospital will be thoroughly advised as to the desirable experts, who are easy enough to know, so that the investigation and the report of the conditions at the Charity Hospital may be complete and comprehensive and, at the same time, unbiased by any political or other animadversion. The whole of the profession of the State of Louisiana including the large contingent in the Parish of Orleans are looking to the result of this initial step with much concern, for the thing to be desired is, above all, the establishment in the New Orleans Charity Hospital of a system which is in line with contemporaneous practice elsewhere in like institutions.

It is all the more important that the revision of the Charity Hospital should be undertaken at this time when the organized medical profession of the United States, as represented by the American Medical Association, is on the eve of investigating and classifying the hospitals in this country with a view of evolving a comprehensive plan for recommendation as a standard for the highest expression of economics and of efficiency.

It is to be hoped that the revision may be timely and complete so that when the classification referred to is brought about our Charity Hospital, of which we are justly proud, may take its place in a rank which should become its importance, both in the economics

of the city and State as well as in the traditions of medicine in this country.

The President of the State Board of Health.

The governor has re-appointed Dr. Oscar Dowling, of Shreveport, president of the Louisiana State Board of Health. The JOURNAL believes the action a wise one in many ways and congratulates the appointee, while wishing him a most successful term.

It is evident that the governor was not influenced by partisan politics and that he selected his man because he thought him fit for the job. In endorsing this decision, it is not necessary that we should approve all of Dr. Dowling's methods, but we are glad he was appointed because it shows that sometimes good work is appreciated as much as other considerations, and because we believe Dr. Dowling capable and willing to accomplish more for this commonwealth.

Unbiased by our personal friendship, we can say that Dr. Dowling has been an active and aggressive president, besides giving his time to his official work. He has followed modern lines in the interpretation of his duties as chief of the sanitary forces of our State and, with the experience forming a part of his qualifications, his fitness for the office can not be questioned.

Abstracts, Extracts and Miscellany.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

SOME TOXIC EFFECTS OF SALVARSAN.—Before the Fifth German Congress of Neurologists, held last October in Frankfort, Professor Finger, of Vienna, delivered, apparently in the presence of Professor Ehrlich himself, an important address on the toxic effects of salvarsan. In his introductory remarks the Viennese syphilographer mentioned incidentally that, as long as the preparation was not on the market, he had not countenanced its use outside the hospital clinics, for he considered that its employment in private cases in

these circumstances was unfair. After it had been placed on the market some unpleasant experiences had made Professor Finger hold his hand before advising its general use.

He considered that the only data from which conclusions should be drawn were those obtained by observation in a hospital, in a public way, where cases could be seen and followed up by several medical men, for it was easy in private practice for the sole observer to autosuggestionize himself. Dr. Finger had treated over 500 patients with salvarsan, and with salvarsan only, in order to be able to judge the preparation on its merits—an end which could not be achieved if mercury and potassium iodid were also given. Every one admitted the good symptomatic results obtained by means of salvarsan, but he desired to deal with the complications, especially those of the nervous system.

Latterly, following the lines laid down by Ehrlich, he had used salvarsan by the intravenous method only. Among the symptoms which might follow the injection, Professor Finger enumerated the following: Rigors, fever, with a temperature of 40° C (104° F.) and upwards; general malaise, prostration, headache, dizziness, vomiting, colic and diarrhea, jaundice, loss of appetite, rapid pulse, cardiac symptoms, dryness and irritation of the throat and pharynx, difficulty of breathing, psychic and motor restlessness, tremors of the knee, bladder, troubles, severe sweating, conjunctivitis, salivation, with salty taste in the mouth; urticaria, erythema, herpes, zoster, temporary melanosis. In addition, soon after—indeed, in some cases immediately after the injection—symptoms such as the following were observed: Edema and cyanosis of the face, clouding of the mind, vomiting, diarrhea, breathlessness, diaphragmatic cramps, tonic and clonic contractions of the muscles of the limbs, severe collapse. He considered that these various symptoms pointed to an acute arsenical intoxication, and most observers were of the same opinion. He did not agree with the views of Neisser and Kuznitsky on this point, namely, that the symptoms were the result of the direct action of salvarsan on the spirochetæ—that is, were due to a general specific reaction produced by the setting free of endotoxins through the destruction of a large number of the parasites. That view could not explain the fact that similar symptoms had been observed after the injection of salvarsan in non-syphilitics, as in psoriasis and leprosy, for instance. Moreover, the *post-mortem* appearances agreed with the diagnosis of arsenical intoxication.

Geronne and many others had established this point, and Professor Finger had himself a fatal case, in which the necropsy was done by Professor Weichselbaum, of Vienna, who had come to the conclusion in his report that, in the absence of any other discoverable cause, death was due to acute arsenical intoxication. Nor did Finger accept the view of Weichselbaum, of Berlin, that the symptoms were due to microörganisms in the solution he employed. Finger said that the saline solution he employed was always freshly prepared and sterilized by the hospital pharmacist, and he had, moreover, ascertained that even before sterilization the saline solution had been found to be practically free from germs. Although both in his own clinic and in that of others in the Vienna General Hospital intravenous injections of saline solution to the extent of a liter had frequently been carried out for various conditions, symptoms similar to those he had described had never been observed. Moreover, the same symptoms had occurred after intramuscular injections of salvarsan, so that the saline solution could have played no part in their production.

As to the very important matter of nerve involvement, Finger stated that, out of his 500 cases, nerve complications were observed four times (9 per cent), whereas, in Weintraud's 1,500, only 13 (0.9 per cent), and in Wechselmann's 2,800, only 10 (0.37 per cent). But Zimmern had pointed out that only 125 of Herxheimer's 900 cases were kept under observation, and it was in these 125 cases that nine instances of nerve trouble (7.5 per cent) occurred. Geronne and Gutmann had stated that only 300 of Weintraud's 1,500 cases were under any continued observation, and, out of these 300 cases, 13 exhibited nerve symptoms (4.3 per cent). Wechselmann himself admitted that he only saw a portion of his total patients again. Finger then reviewed in detail the cases of nerve complication he had observed, and concluded that the connection with salvarsan could not, on the following grounds, be doubted:

1. The occurrence of the nerve troubles with typical regularity some eight to six weeks after the salvarsan treatment.

2. The frequency of these complications in patients treated with salvarsan as compared with the relative infrequency of such complications in patients either not treated at all or treated by means of mercury. In the thousands of cases of syphilis he has had under observation for two or three years after infection, such nerve complications had been very rare. But in cases treated by salvarsan he

had seen in a short period 44 cases of nerve complications in 500 cases treated by salvarsan. Benario had collected in medical literature 194 cases of nerve complications after salvarsan treatment, but such statistics were of no value unless the total number of cases treated by the two methods was known, and, though the total number of salvarsan cases might be known, the number of cases treated by mercury was not known.

Finger criticized Ehrlich's view that the nerve complications were due to the survival of spirochetæ in bony canals, the spirochetæ in the rest of the organism having been destroyed by the salvarsan. There was, he said, no proof of the complete sterilization of the rest of the organism; on the contrary, Finger found that, in 12 out of his 44 cases of nerve trouble, widespread affection of the skin and mucous membrane was present at the time of the appearance of the nerve symptoms, or followed the latter. The Viennese professor adduced other objections to salvarsan, and concluded his paper by stating that, judging from his own statistics, the secondary stage, and especially the early secondary stage, was not a suitable period for the exhibition of salvarsan, 12 per cent of his nerve-complication cases occurring in the secondary stage, as against 4 per cent in the primary and 2 per cent in the tertiary stages.

On the other hand, whilst admitting that the increased number of complications observed recently after the use of salvarsan, as far as the auditory apparatus is concerned, do mean something new, Dr. Karl Beck, assistant in the ear, throat and nose clinic of Professor Kummel in Heidelberg, points out that whether these are due to salvarsan or to syphilis is another matter.

In any case, he found that, whereas only one such instance of auditory complication has been observed during a period of five years in the ear clinic, five such cases had come under notice in the previous six months after the salvarsan treatment. Dr. Beck thought that he could clear up the matter by injecting salvarsan in suitable doses into the vein of the tail of white mice, and then, after a time, decapitating the animals and cutting sections of embedded skull and contents. The results were negative. Dr. Beck admits, too, that such experiments on animals cannot afford conclusive evidence as to what happens in the human organism. There are differences which cannot be ignored. The fact remains that auditory complications in the Heidelberg clinic are far and away

more common since salvarsan has been used. This, at any rate, confirms the opinion expressed by Professor Finger, of Vienna. —*British Medical Journal,* January 27, 1912. J. A. S.

The Rectal Administration of Salvarsan.—S. L. Bargow *(Berl. klin. Woch.,* 1912, xlix, 108) has used salvarsan in suppositories in cases where intravenous or intramuscular administration seemed inadvisable. The suppository is made to contain 0.1 to 0.2 gram salvarsan and 0.01 gram novocain. A suppository is given at two to three-day intervals till the desired amount of the drug has been given. The bowels should not move till ten or fifteen hours have elapsed after giving the suppository. The effect of the drug is manifest in three to four days, and there is practically no reaction, either local or general. J. A. S.

Improved Technic for Determination of Occult Blood in the Urine.—Leed's improvement consists in accumulating as many of the blood corpuscles as possible before applying the guaiac or other chemical tests for occult blood. This he accomplishes by filtering a large amount of the urine and applying the chemical test to the residue left on the filter. The tests are thus made extremely sensitive, revealing invisible blood in the minutest proportions. By heating the urine it is possible to destroy other substances liable to interfere with the findings. Urine two days old seems to give the reaction practically as well as fresh. A suspension of red corpuscles in salt solution, in a dilution of 1 to 800,000, gave positive findings, even after six days. *Medizinische Klinik* (Berlin). J. A. S.

Varieties of Cough.—The cough excited by laryngeal disease, Duckworth says, is more appropriately dealt with by local treatment, inhalation of vapors of benzoin, menthol, eucalyptol or thymol, singly or in combination, or sprays of liquid paraffin containing menthol, camphor and oil of cinnamon, the latter being more useful in chronic laryngitis. Lozenges of black currant and ammonium chlorid give relief, and small blisters, the size of a shilling, applied on either side of the thyroid cartilage, are helpful in tuberculous disease of the larynx. In plastic bronchitis the severe cough induced by occlusion of the smaller bronchi is best removed by iodid of potassium, which commonly succeeds in preventing the formation of the casts and cures the disease. Cough dependent on aneurysmal pressure is relieved by appropriate treatment for the

primary disease, and iodid of potassium, with reduced diet, is indicated for this purpose, and is generally effectual. Whooping-cough is restrained by inhalations of benzoin, creosote and other tar products, while belladonna with bromid of sodium, together with a good dietary, are the most efficient agents. Tussis hysterica is best not treated as a catarrhal symptom in most instances. It should be ignored if tolerated, and not allowed to incur sympathy. Faradism to the neck and thorax, repeated as required, may prove very effectual.—*Clinical Journal* (London). J. A. S.

The Diagnostic Importance of the Pulse Rate in Appendicitis.—The pulse rate is a very important guide in determining the necessity for operation in acute appendicitis, but sometimes it should be altogether disregarded. If distinct pain and tenderness have not abated after twenty-four to thirty hours (especially if vomiting and more or less rectus rigidity co-exist, but even without these), it is proper to operate without waiting further, no matter what the temperature and pulse rate. A gangrenous appendix may be found in a patient whose pulse is 70 and temperature 100. —*Amer. Jour. of Surg.* J. A. S.

Gastric Ulcer.—In hemorrhage from gastric ulcers, Carnot recommends the following:

Gelatin.	2.0 gm.
Acid salicylici	0.5 gm.
Aquae coctae	100.0 gm.

Give of this mixture one tablespoonful two or three times a day in severe hemorrhage, a dose every hour.—*Dominion Med. Monthly.* J. A. S.

Internal Hemorrhage.—Haddaeus says gelatin is the best hemostatic in severe hemorrhages, where the source of bleeding cannot be reached. The smallest quantity that should be used he states is 30 grn. L. Gruneberg reports prompt action from gelatin injections in the hemorrhage diathesis of the new-born. For intestinal hemorrhage due to typhoid, K. Wittauer has obtained brilliant results from gelatin injections.—*Ibid.* J. A. S.

Department of Nervous and Mental Diseases.

In Charge of Dr. R. M. Van Wart, New Orleans.

Rare Symptoms in Chorea.—A. Westphal *(Wien. med. Klin.,* No. 15, 1912) describes two cases of chorea minor which presented unusual symptoms, and which were also of interest because of the anatomical changes which underlay the clinical symptoms were brought out by microscopical examination. The first case was of acute chorea minor in a child of 12. The striking point was the absence of knee-jerks, which was verified by repeated examinations as the choreic movements diminished in severity; on one occasion the reflex was present, but feeble. A few days after admission the patient developed a loud, blowing systolic murmur at the apex and base, and there was irregular remittent fever up to 39.5° C. (103.1° F.); death occurred a fortnight after admission from heart weakness. At the autopsy small nodules were found on the mitral valve, and a few on the aortic valve. From particles of these nodules cultures were made, and colonies of hemolytic streptococcus developed. Guinea-pigs were injected subcutaneously with pure cultures of the streptococcus, but in only one case was there a positive result—shown by the development, a few weeks later, of swelling of a joint caused by the presence of sterile pus. Microscopic examination of the spinal cord showed acute cell changes in many of the ganglion cells of the anterior horn, though a not inconsiderable number of those cells remained intact. No change was found in the peripheral nerves. The affection of the ganglion cells of the anterior horn must probably be looked upon as the essential cause of the disappearance of the patellar reflex, but since the reflex disappeared in spite of the persistence of many "intact" cells, it seems not impossible that toxic influences affected parts of the grey substance not demonstrably diseased. Marked hypotonus of the muscles were present, and might result in the loss of the reflex when combined with even a slight lesion in the reflex path. The author inclines to the view that, in chorea minor, disappearance of the knee-jerk, when it occurs, is a temporary phenomenon depending partly on the effect of toxins on the reflex path.

The next case was a severe post-rheumatic chorea, with physical symptoms, in a girl of 16 years of age. In the last days of life an

ophthalmoplegia developed, which appeared to affect all the external eye muscles except the external recti; the sphincter iridis was affected, the pupils were small, and no light reflex could be detected. The anatomical change found post-mortem was an acute polioencephalitis hæmorrhagica on the floor of the third ventricle and the aqueduct of Sylvius. The extent and localization of the hemorrhagic process corresponded to that seen in the alcoholic form of polioencephalitis, a form which is also seen to develop as a result of infectious disease. The primary lesion in this case was probably an affection of the vessel walls, due to the action of toxins. The paralysis of the eye muscles could not have been essentially and solely due to the hemorrhages, but the author has already shown that in hemorrhagic encephalitis the clinical symptoms and the anatomical changes do not always exactly correspond. This case of the occurrence of an almost total ophthalmophagia in combination with a polioencephalitis superior hæmorrhagica in chorea minor seems to be unique in the literature. The author considers that both these cases support the theory that chorea minor is one of the infectious diseases.—*Brit. Med. Journ.* VAN W.

CEREBRAL LOCALIZATION FROM THE POINT OF VIEW OF FUNCTION AND SYMPTOMS.—Morton Prince *(Journ. of Nerv. and Ment. Diseases,* June) discusses cerebral localization, with special reference to the diaschisis theory of v. Monakow, who has worked out a theoretical mechanism by which the dynamic influences proceeding from a lesion disturb the functions as a whole, and produce the symptom-complex usually ascribed to and localized in a single focus of brain area. Only a small portion of the symptoms are a necessary result of the anatomical solution of continuity, and, therefore, in principle, permanent. The remainder can disappear, and are, therefore, in principle, temporary. By diaschisis is meant a functional shock-like inhibition of previously uninjured distant areas produced by the dynamic influences of a lesion anatomically connected with such areas. Through the break in the continuity of the conducting associative paths the eccentrically-lying brain foci are robbed of their natural sources of stimulation, and in part isolated. Thus temporary symptoms, in principle, may persist indefinitely from persistence of inhibition. Only the directly injured elements can give rise to the permanent symptoms and the secondary degenerations; the indirectly injured neurons are the proper carriers of diaschisis. The writer points out that, in the

domain of cerebral psyiology and special pathology, v. Monakow's work is of special significance and importance. He has offered a new conception of the relation of the so-called cortical centres to the functions which they are supposed to subserve, and to the special symptoms which are supposed to follow their destruction. In aphasia, asymbolia, apraxia and cortical paralysis, for example, he has sought to determine the exact element of function localizable in given areas, and, therefore, the necessary symptom defect following a focal lesion. Finally, he has sought the exact diaschisis effect responsible through associative, commissural and other paths for the remainder of the symptoms.

An Unusual Form of Muscular Cramp.—Oppenheim *(Neurol. Centralbl.,* No. 19, 1911) observed a series of cases of a peculiar form of muscular cramp occurring in young people of both sexes, aged 8 to 14 years. The patients all belong to the Jewish race. He calls the disease "dysbasia lardotica progressiva," or "dystonia musculorum deformans." The muscles affected are chiefly those of the thigh, the pelvis and spinal column used for standing erect and walking forward. The characteristic symptoms are a marked "lardosis" or "lardo-scoliosis" of the lower thoracic and lumbar spinal column, with a definite declination of the pelvis. The legs show a tendency to an abnormal position, and the patient finds it difficult to stand. An attempt to walk increases the symptoms considerably, and the patient is sometimes obliged to rest his hands on his knees or support himself with a stick. He soon becomes exhausted by walking, and perspires profusely, his pulse increasing in frequency. The symptoms are chiefly connected with locomotion, and, when the patient is in a horizontal position, either disappear completely or are markedly diminished. On close examination some of the muscles showed a tendency to tonic contraction, while others were distinctly hypotonic. No paralysis was present, no electrical changes were found. Sensation and speech were normal. In certain points the affection resembled chronic chorea, and still more athetosis. The author remains uncertain as to the nature of the disease, but its progressive character leads him to think that minute changes in the central nervous system are at the root of it, and that these affect certain regions governing or influencing the muscle tonus. Van W.

Juvenile Tabes Dorsalis.—Otto Maas *(Neurol. Centralbl.,* March, 1912) describes a case of tabes dorsalis beginning at the

age of 13. The symptoms were quite typical. At 13 the patient had bladder trouble, at 16 eye symptoms and slight uncertainty in walking, also absence of knee-jerks; at 18 complete blindness, at 27 needle-pains in the legs, at 28 diminished sexual potency, at 38 increase of locomotor trouble, ending in complete inability to walk. The patient died at the age of 41. The autopsy revealed a normal condition of the brain, the cornu anterior, and the anterior roots, whereas in the posterior roots and posterior bundles there was marked degeneration throughout the whole length of the cord. The clinical interest of the case is its early onset and long duration. Cases of juvenile tabes dorsalis are very rare. The father of the patient was syphilitic, and also suffered from tabes dorsalis.—*Brit. Med. Journ.* VAN W.

Department of General Surgery.

In Charge of DRS. F. A. LARUE and P. L. THIBAUT, New Orleans.

THE SURGICAL TREATMENT OF AORTIC ANEURISM.—John A. C. Macewen, M.B., C.M., of Glasgow, in *Annals of Surgery,* November, 1912, considers the treatment of aneurism, otherwise inoperable, by the method of "needling," and reports a case so treated with a favorable outcome. The patient was a woman, 40 years of age, who had suffered from aneurism of the arch for at least a year and had during this time undergone the usual medical treatment with rest and starvation, and without any betterment of the symptoms before being referred to him. She remained in hospital under his care for seven weeks, during which time "a needle was twice introduced and a large area of the posterior wall was treated. . . . She returned to the hospital in January, 1910, had a needle introduced once, remained in hospital for a month, and was able to go home in a cab. . . . She returned to hospital in October, 1910, remaining there for a month, and on this visit had two needles introduced simultaneously on two occasions, at an inerval of a fortnight.". . . . "In July, 1912 (three years after treatment was first instituted), patient expresses herself as having been given a new lease of life and as feeling better than she has done for many years back."

The desirability of early diagnosis and treatment is urged; in large aneurisms leakage is predisposed to, and even needling, for this reason he states, may become undesirable.

It will be remembered that treatment by needling was first introduced in 1890, by Sir William Macewen, the idea being to lacerate the intima only to an extent sufficient to induce the formation of a "white clot" with subsequent organization. It was used in several cases by him and others, with varying results, and finally came into disuse owing to its uncertainty, the difficulty of limiting the effect of the puncture to the internal surfaces, and the fact that the aneurism is already lined with laminated clot. So far as the last objection is concerned, it has been demonstrated by Matas that even in false aneurisms there is formed a lining of endothelium which is in all respects similar to the normal lining of the vessel. This is also formed over the laminæ of the aneurysmal sac, and hence could be expected to react to the stimulus.

It is interesting to note that as far back as 1852 an operation consisting of the rubbing together of the walls of the sac after it had been emptied of blood, was proposed and first executed by Mr. Ferguson, of King's College, London. His first case died some time after an apparent improvement had resulted, death being due to sepsis and embolism. In a second case by Mr. F. permanent cure resulted, but not until two years later. (Gross' System of Surgery, 3rd edition, 1866, pages 699-700.) The modus operandi was not given by Ferguson, but the fact that a two years interval elapsed in the second case would rather point to a similar physiopathology as that observed in needling.

Department of Internal Medicine.

In Charge of Dr. E. M. Dupaquier, New Orleans.

Standard Classification of Pulmonary Tuberculosis.—For the sake of accuracy in using terms descriptive of the various stages or degrees of severity of pulmonary lesions, it is advisable to avail oneself of the definitions adopted by the National Association for the study and prevention of tuberculosis.

Incipient (favorable.) Slight initial lesions in the form of infiltration limited to the apex or a small part of one lobe through tuberculsosis complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight). Slight or no elevation of temperatures, or accelera-

tion of pulse at any time during the twenty-four hours, especially after rest. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent.

Moderately advanced. No marked impairment of function either local or constitutional. Localized consolidation, moderate in extent with little or no exidence of destruction of tissue; or disseminated fibroid deposits. No serious complications.

Far advanced. Marked impairment of function, local and constitutional. Localized consolidation intense; or, disseminated areas of softening or serious complications.

Miliary tuberculosis. (Flint's Physical Diagnosis by Emerson, page 351.) E. M. D.

The Auscultatory Blood-Pressure Phenomenon.—The first phase is due to the sudden expansion of the collapsed portion of the artery below the cuff (12 cm.) and to the rapidity of the blood flow. This causes the first sharp clicking sound which measures the systolic pressure.

The second, or murmur and sound phase, is due to the whirls in the blood stream as the pressure is further released and the part of the artery below the cuff begins to fill with blood.

The third tone phase is due to the greater expansion of the artery and to the lowered velocity in the artery. A loud tone may be produced by a stiff artery and a slow stream, or by an elastic artery and a rapid stream. This tone is clear cut and, in general, is louder than the first phase.

The fourth phase is a transition from the third and becomes duller in sound as the artery approaches the normal size. Fisher believes this transformation coincides with the desirable pressure.

The fifth phase, no sound phase, occurs when the pressure in the cuff exerts no compression on the artery and the vessel is full throughout its length.

It is generally conceded that the sounds heard are produced in the artery itself and not at the heart.

The tones vary greatly in different hearts. A very strong tone phase, or prolongation of this phase, usually means that the heart, which produces the tone, is a strongly acting one, although allowances must be made for a sclerosed artery, in which there is a tendency to the production of a sharp third phase.

Weakness at the third phase, as a rule, indicates weakness of

the heart and this dulling at the third phase may be so excessive that no sound is produced. Goodman and Howell have carried this method further by measuring the individual phases and calculating the percentage of each phase to the pulse pressure. Thus, if in a normal individual the S. P. is 130 m. m., the D. P. 85 m. m., and the P. P. 45 m. m.; the first phase lasts from 130 to 116, or 14 m. m.; the second from 116 to 96, or 20 m. m.; the third from 96 to 91, or 5 m. m.; the fourth from 91 to 85, or 6 m. m. The first phase would then be 31.1 per cent of the total pulse pressure, the second phase 44.4 percent, the third phase 11.1 per cent, and the fourth phase 13.3 per cent.

They consider that the second and third phases represent cardiac strength (C.S.) and the first and fourth represent cardiac weakness (C.W.). They believe that C. S. should normally be greater than C. W. In the example above C. S. : C. W. = 55.5 : 44.4. In weak hearts, especially in uncompensated hearts, the conditions are reversed and C. W. > C. S. This is actually the case. As a heart improves C. S. again becomes greater than C. W. They think that the phases should be studied in respect to the sounds and also to the encroachment of one sound upon another. (Goodman and Howell. See Warfield's Arteriosclerosis, pages 82-85.)

E. M. D.

Louisiana State Medical Society Notes.

In Charge of Dr. L. R. DeBuys, Secretary, New Orleans.

Orleans Parish Medical Society.—At the annual election of this society, held December 14, 1912, the following officers were elected to serve during 1913: Dr. Homer Dupuy, president; Dr. C. N. Chavigny, first vice-president; Dr. L. R. DeBuys, second vice-president; Dr. N. Thomas Lanaux, third vice-president; Dr. W. D. Phillips, secretary; Dr. A. A. Keller, treasurer; Dr. Howard D. King, librarian; Drs. W. H. Block, E. L. Leckert and E. H. Walet, additional members Board of Directors. The installation of officers will take place on Monday, January 13, 1913.

St. Tammany Parish Medical Society.—The physicians of St. Tammany Parish have re-organized, with the following officers: Dr. H. E. Gautreaux, Covington, president; Dr. K. W. Ney, Madi-

sonville, vice-president; Dr. H. D. Bulloch, Folsom, secretary. Following is a roster of the members: H. D. Bulloch, Folsom; F. J. Buquoi, Covington; C. F. Farmer, Lacomb; Alonzo Givens, Mandeville; H. E. Gautreaux, Covington; A. G. Maylie, Mandeville; P. R. Outlaw, Slidell; R. B. Paine, Mandeville; J. F. Polk, Slidell; K. Winfield Ney, Madisonville; F. G. Marrero, Covington; G. R. Tolson, Covington; G. A. Pennington, Madisonville; B. B. Warren, Covington; L. C. Heintz, Abita; G. K. Griffith, Slidell; F. J. Rohmer, Talisbeek. At the regular meeting held at Slidell, November 22, there was a good attendance. Dr. R. B. Paine read an interesting paper entitled, "The Country Doctor and His patient," and Dr. K. W. Ney spoke on "Goitre." The resume of the December meeting, which was held on the 18th, will be given in the next issue of the JOURNAL.

IMPORTANT NOTICE.

To the Members of the Louisiana State Medical Society:—Your attention is called to the fact that at the last annual meeting of the Louisiana State Medical Society, the dues were increased from $3.00 to $4.00 per year beginning January 1, 1913. One dollar of this amount is to go annually to the Committee on Arrangement of the Parish Society entertaining the State Society.

When remitting for 1913, please make your check $4.00 for State Society dues.

If your parish is organized, remit to your local secretary, if not, send check direct to Dr. Maurice J. Gelpi, treasurer, 141 Elk Place, New Orleans.

All assessments are due January 1 and are payable in advance.

Please be prompt in settling your dues, as the society needs all the money due it to run its business.

B. A. LEDBETTER, M. D., President.
L. R. DE BUYS, M.D., Secretary.
MAURICE J. GELPI, M.D., Treasurer.

Medical News Items.

The New Charity Hospital Board Acts.—The New Orleans Charity Hospital Board organized on Monday, December 16, with Mr. Frank B. Hayne as vice-president of the Board. The Conference Committee of visiting staff of the hospital were invited to a special meeting of the Board, held on Wednesday, the 18th. At this meeting the entire Board was present, excepting Governor Hall, who is ex-officio president of the Board. The Board now consists of Messrs. Hayne, J. P. Blair, C. A. Farwell, Orloff Lake, J. B. Sinnott, Arsene Perrilliat, W. E. Stauffer and Edgar B. Stern. The Conference Committee at this meeting was represented by Drs. I. I. Lemann, chairman; H. B. Gessner, secretary, and Drs. R. Matas, M. Feingold and I. Dyer.

The Conference Committee submitted a communication to open the question of the relations of the Board of the Hospital revision, of which the following is a comprehensive abstract:

" * * * During the last year the organized medical profession of the city and State, through its representative bodies, the Orleans Parish Medical Society and the Louisiana State Medical Society, has adopted resolutions setting forth that, in its opinion, the present system of organization of the hospital is antiquated, and not adapted to the needs of a modern institution of this kind. The visiting staff and alumni of the hospital have passed similar resolutions. Members of the latter bodies have had intimate knowledge of the hospital routine through their experience as interns and as visiting physicians and surgeons. Moreover, the Alumni Association of the Charity Hospital some five years ago, through a committee, investigated the systems of management in vogue in all the important hospitals of this country. It was found that the character of the organization was practically uniform among all the institutions of this class, and that our hospital constituted a sole exception. The strong presumption is that a method so generally employed and recognized is the correct one. This impression is confirmed by the fact that the chief evils of which the local profession complains do not exist in other hospitals. These evils flow from two causes, namely:

"Specific Complaints.

"1. The numerous and varied medical duties and activities of the house surgeon and his assistants, combined with the great and growing responsibilities of their executive functions.

"2. The divided authority and responsibility in the care of patients between the resident and visiting staffs, in consequence of which efficiency suffers, at the expense of the patient, the ward of the State.

"The present system of management is the gradual outgrowth of time and custom since the establishment of the present plant in 1832. Constant growth and development of the institution in the last three-quarters of a century have made it mandatory that the old, primitive method should undergo revision, and more modern, efficient and satisfactory organization should be adopted.

"Hospital management has become a profession in itself, calling for a

special kind of preparation and fitness. In order that the relation of the Charity Hospital to modern hospital management should be properly considered and determined, it is desirable that one or more qualified and recognized authorities be called upon to look over the existing conditions with a view to recommending a comprehensive plan, taking into consideration all the local and special phases of the subject.

"In conclusion, we wish again to express to you our appreciation of your courteous invitation, and to assure you of our earnest desire to cooperate with you at all times in promoting the welfare of the unfortunate sick and injured who are our joint charges."

The members of the Board showed a keen interest in the whole question and their disposition was finally expressed in a set of resolutions as follows:

"Whereas, this Board, composed of lay members, feels the need of expert advice and assistance, especially in respect to the administration of the hospital on its medical side;

"And, whereas, this Board approves of the suggestions of the conference committee of the visiting staff, that a proper source from which to obtain expert assistance is from those who have made a profession or special study of the science of hospital administration;

"Be it resolved, That this Board engage the service of some such specialist in hospital management to visit the Charity Hospital, familiarize himself with local conditions and the present organization or system of administration, and then to give an opinion and report upon the present conditions and system of management, and to suggest such changes, if any, in the organization or system of management in all departments as his knowledge and experience may lead him to recommend as necessary or advisable."

The Medical Committee of the Board, consisting of Messrs. Blair, Farwell and Hayne (ex-officio), were instructed to put the resolutions into effect.

This initial step of the Board is one towards the study of the hospital, urged by the State Society, the Orleans Parish Medical Society, the Charity Hospital Alumni Association and the members of the visiting staff.

Endowment Involved.—The action of Governor Dix, of New York, in pardoning Albert T. Patrick may involve the endowment of the Rice Institute at Houston, providing Patrick succeeds in establishing his claims to a part of the former Texas millionaire's fortune. The $10,000,000 endowment would be reduced to $1,000,000, and Patrick would become absolute trustee of the fund with which the college was established.

Pellagra Is Still a Mystery.—After four and a half months' study of pellagra in South Carolina, the Thompson-MacFadden Pellagra Commission has recently reported that while its data on the epidemiology of the disease is the most complete ever obtained,

the mystery involving the origin of the ailment has not been dispelled.

The New Orleans Academy of Sciences met on December 10 at the Progressive Union. Papers were presented by Dr. Gustav Mann and Dr. J. M. Fletcher, dealing with the "Physiological and Psychological Views of Consciousness."

The South Texas District Medicine Association met at Houston, Texas, on December 12 and 13. Drs. J. T. Halsey, Isidore Cohn and Carroll W. Allen, of New Orleans, were guests of the Association.

Shreveport Hospital Changes.—The Board of Administrators of the Shreveport Charity Hospital has announced the appointments of Dr. A. P. Crain as surgeon in charge, and Dr. S. L. Williams as house surgeon and superintendent; Dr. E. A. Welsh was reappointed as pathologist and assistant superintendent.

New Board of Administrators for the New Orleans Charity Hospital.—The announcement of the new board for the hospital as made early in December comprises Messrs. J. B. Sinnott, Chas. A. Farwell, Orloff Lake, Edgar B. Stern, J. P. Blair, Frank B. Hayne, W. E. Stauffer and Arsene Perrilliatt. This board is representative and composed entirely of non-medical men, in this last respect satisfying the judgment of the majority of the medical profession, which asked for a non-medical board. Governor Hall is to be praised for the selection of the personnel of the board as now constituted, and it is hoped that there may be something done to quiet the disturbed conditions in the services of the hospital as soon as the board is organized.

The Sixth Pan American Medical Congress is announced to take place August 3 to 10, 1913, in the City of Lima, Peru. All interested should address the Secretary General of the Congress, care the National Academy of Medicine, Lima.

International Medical Congress in London.—A preliminary program of the Congress gives a comprehensive idea of the scope of the meeting to be held August 6 to 12, in London. All communications concerning the Congress should be addressed to 13 Hinde street, London, W., England.

The American Association for the Advancement of Science meets in Cleveland, Ohio, December 30, 1912, to January 4, 1913.

The Museum at the XVIIth International Medical Congress, 1913.—A committee, with Prof. A. Keith of the Royal College of Surgeons as chairman, has been formed for the purpose of organizing a museum in connection with the XVIIth International Congress of Medicine, London, 1913. The arrangements have been entrusted entirely to this committee, and it has been invested with the power of acceptance or refusal of any offered exhibit.

It has been recognized that the collection of material illustrative of recent advances in medical science in one center possesses obvious advantages over the plan of leaving each section to collect and house the specimens and other material required by the readers of papers for their communications, separately. A central museum offers to a large number of members of the Congress an opportunity of studying these advances from the available material, and this study is enhanced by the co-ordination of the various departments.

The committee has drawn up regulations which shall govern the Museum and is following a plan of procedure. The Museum will consist of exhibits illustrating the subjects which will be discussed in the various sections, and such other material as the committee may deem of interest or importance. The specimens will embrace the scientific side of medicine, to the exclusion of a commercial element. Excellent accommodation has been secured for the purpose at the Imperial College of Science, South Kensington, and the Museum will be arranged in this place as far as is possible in correspondence with the sections of the Congress. The co-operation of the officers of each section has been obtained, in order that the collections may be worthy of the occasion. It has further been decided that inasmuch as the meeting is to take place in London, and as the visitors will doubtless desire to inspect the metropolitan hospitals and other great institutions, material will not be collected from the museums of the metropolis. The committee is, therefore, seeking exhibits from provincial and foreign institutions and from private collections.

Medical practitioners and scientists who are willing to place at the disposal of the committee material illustrative of recent advances in any branch of medical science are requested to communicate with the Hon. Secretary of the Museum Committee, (H. W. Armit, Ravenhurst, Talbot Road, Wembley, England.)

The committee is prepared to defray the expense of transit of the exhibits and to insure them against damage and loss, and will

take every precaution to return them in good condition to their respective owners.

Exhibitors will be invited to hold demonstrations in the Museum on their own specimens.

It may further be pointed out that permission has been obtained from the Council of the Congress to keep the Museum open for a few days after the Congress has ended, if it be found desirable to do so.

State Health Board Elects Officers.—The Louisiana State Board of Health has been reorganized and the following officers were elected: Dr. Oscar Dowling, president; Dr. A. H. Gladden, vice-president; Dr. Wm. M. Perkins, secretary; Mr. Robert S. Landry, bookkeeper; Misses A. Butts, F. D. Nelken, E. C. Regan, stenographers; Geo. B. Taylor, analyst; Dr. Mayer Newhauser, inspector; Dr. W. H. Seemann, bacteriologist; Miss Agnes Morris, inspector of hygiene and schools; Dr. S. D. Porter, director of Hookworm Commission; Drs. Thomas E. Wright, Geo. B. Adams, J. D. Baucum, G. C. McKinney, inspectors of Hookworm Commission; Joe H. Meade, porter. With the exception of the secretary there were no changes made in the personal of the office force.

Alsberg Succeeds Dr. Harvey Wiley.—On December 16, President Taft directed Secretary Wilson to appoint Dr. Carl Alsberg, a chemist in the Agricultural Department, chief of the Bureau of Chemistry, to succeed Dr. Harvey Wiley. Dr. Alsberg has an international reputation as an authority on the biological phases of chemistry.

United States Public Health Service.—A board of commissioned medical officers will be convened to meet at the Bureau, 3 B Street, S. E., Washington, D. C., on Monday, January 13, 1913, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon.

Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to their professional and moral character. Service as interns in hospital for the insane, or experience in the detection of mental diseases, will be considered and credit given in the examination. Candidates must have had one year's hospital experience, or two years' professional work, after graduation.

For further information, or for invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

Tri-County Medical Association Meeting.—The annual meeting of the Tri-county Medical Association was held in Brookhaven, Miss., December 3, with a representative attendance from the Counties of Pike, Lincoln and Copiah. Officers were elected for the coming year, as follows: President, Dr. W. D. Beacham, of Topisaw; secretary, Dr. D. W. Jones, of Brookhaven; vice-presidents, Dr. J. M. Catchings, of Copiah; Dr. O. N. Arrington, of Lincoln; Dr. T. K. Magee, of Pike.

State Universities Association Elects.—The National Association of State Universities met in Washington, D. C., November 19 and elected the following officers: President, Dr. Edmund J. James, president University of Illinois; vice-president, Dr. Joseph T. Kingsbury, president University of Utah; vice-president ex-officio, Dr. P. P. Claxton, United States Commisioner of Education; secretary-treasurer, Dr. Porter Benton, University of Vermont. Executive committee: The officers and Francis P. Venable, president University of North Carolina, and Chancellor Samuel Avery, of University of Nebraska.

The Royal Society of London recently conferred a great honor on an American scientist at its anniversary meeting, when Buchanan's medal was awarded to Colonel W. C. Gorgas for his distinguished work in the sanitary administration of the Panama Canal Zone. The society exceedingly regretted the absence of Colonel Gorgas, but the medal was handed to a representative of the American Embassy for safe conveyance to Colonel Gorgas. The medal, which is accompanied by a grant of the remainder of the Buchanan fund, is awarded every five years for distinguished services to hygienic science or practice, without limit of nationality or sex. Three previous recipients have been Sir John Simon, Sidney M. Copeman and Sir W. H. Power, all Englishmen, so that Colonel Gorgas is the first foreigner to receive the society's recognition.

Anti-Tuberculosis League Elects Officers.—At a recent meeting of the Anti-Tuberculosis League, the following officers were elected for the coming year: Dr. George S. Brown, president; Dr. A. E. Robin, first vice-president; Miss Kate M. Gordon, second vice-president; Dr. J. Geo. Dempsey, treasurer, and Dr. A. I. Weil, secretary.

New City Health Board.—The new City Health Board, authorized under the commission form law, has been organized. Dr. W. T. O'Reilly was appointed superintendent of public health and chairman of the City Board of Health for a term of four years from September 11, 1914. The following appointments were made: Dr. W. H. Robin, sanitary officer and secretary-treasurer, salary $2,400 per annum; Dr. P. L. Gelpi, inspector of communicable diseases, $2,400 per year; Dr. A. L. Metz, chemist, $2,400 per year; Dr. W. H. Seemann, bacteriologist, $3,000 per year; E. A. White, food inspector, $2,400 per year, and W. L. Hughes, attorney, $3,000 per year. A resolution was passed that all the other present employees of the board be retained in the positions they now occupy, and at the same salaries they now receive. Dr. O'Reilly appointed Henry Lanauze as deputy recorder of births, deaths and marriages. Four hundred dollars per annum is to be allowed Dr. Seemann toward the expense of conducting his laboratory. The board is to meet on the second Tuesday of each month at 8 p. m.

Common Towel Must Go.—The common towel was ordered abolished from railroad cars, vessels, all other interstate vehicles and from stations, by Secretary McVeagh, of the Treasury Department. This action has followed closely the abolition of the common drinking cup from use on interstate carriers. Towels may be used again only after having been sterilized in boiling water.

Microbes Lurk in Sugar Bowls.—Surgeon General Rupert Blue, of the United States Public Health Service, has declared that loaf sugar bowls in lunch rooms and cafes were very probable carriers of many diseases. He believes that means should be taken by restaurant proprietors to keep their sugar covered, and compel the customers to use sugar tongs instead of their fingers when helping themselves to loaf sugar. Persons with tuberculosis and other communicable diseases are liable to convey them by putting their fingers into the bowl.

Big Sum Left Hospital.—The Boston Lying-In Hospital will receive more than $500,000 under the will of the late Francis Amory. Harvard University receives a fund which ultimately will reach $100,000, for astronomical research.

New Cure for Tuberculosis.—Dr. Friedrich Franz Friedman, recently exhibited in Berlin patients he pronounced cured of con-

sumption. He declared that the remedy for the disease lies in the serum from turtles. Dr. Friedman has been making tests for two years.

W. B. Saunders Company Occupy New Building.—W. B. Saunders Company, medical publishers, are now established in their new seven-story building on West Washington Square, an ideal site in the heart of Philadelphia's new publishing center. The success of this house and its growth necessitated removal to larger quarters. The building is absolutely fireproof and equipped with every modern aid for the manufacture and distribution of medical books and for the comfort of their employees. A cordial invitation is extended the profession to inspect the new plant.

Personals.—Dr. Chas. V. Unsworth has been appointed chief physician of the Louisiana Retreat. Dr. Unsworth succeeds to the position held by the late Dr. St. Mark Fortier.

Governor Hall has named Dr. Oscar Dowling president and member of the Louisiana State Board of Health.

Dr. E. M. Hummel has recovered from injuries recently sustained in an auto accident.

Drs. C. J. Miller and W. D. Phillips attended the meeting of the Southern Surgical and Gynecological Association at Old Point Comfort, December 17 to 19.

Removals.—Dr. M. V. Hargrove, from Marionville, La., to Oakdale, La.

Dr. H. C. Sevier, from Tallulah, La., to Milliken, La.

Dr. L. M. Overton, from Guthrie, Okla., to Clarita, Okla.

Dr. G. D. Murphy, from Lillie, La., to Champagnolle, Ark.

Dr. John R. Hunter, from Box 183, El Paso, Tex., to 204 Roberts-Banner Building, El Paso, Tex.

Dr. W. P. Hickman, from Woodworth, La., to Isabel, La.

Dr. J. S. Gibson, from Weathersby, Miss., to Pine Grove, La.

Dr. Walter Tusson, from Macheca Building, New Orleans, to Avonmore Hotel, Asheville, N. C.

Dr. B. L. Lockett, from Abeokuta, So. Nigera, Africa, to Oyo, So. Nigera, Africa.

Dr. J. A. Morrow, from Uniontown, Ark., to Sallisaw, Okla.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

A Text-Book of Obstetrics, by BARTON COOKE HIRST, M. D. W. B. Saunders Company, Philadelphia, 1912.

This well-known text-book has reached the seventh edition, and now appears revised and enlarged, with many additional illustrations, many of which are in colors.

The arrangement of the subject-matter is excellent. The author is to be congratulated upon his ability to condense so much material into one volume without omitting essentials. He has continued, in this edition, the policy of including diseases of women, and their treatment, as a necessary part of obstetrics, because the consequences of child-bearing constitute the pathological conditons arising from the consequences of the child-bearing process.

It is hardly necessary to comment upon the manner in which the subject is treated, for Dr. Hirst's immense experience in obstetrical and gynecological clinics long since qualified him as one of our foremost authorities in this field. In the present edition appears an article on "Diseases of the Breast," which is undoubtedly an innovation in an obstetric text-book. The reason for it, however, is sound. With a clinic of three or four thousand women a year, the head of an obstetric department has opportunities for acquiring experience in diagnosis and skill in treatment that no general surgeon can rival. Hence, these diseases must become part of the obstetrician's specialty.

When the first edition, including gynecological operations, appeared, some questioned such a radical departure, but Dr. Hirst states that he is now thoroughly convinced of the value of the work, since it has met with the favor of the medical public.

The thorough revision to which this work has been subjected, its arrangement and excellent illustrations, will continue to recommend it to both students and practitioners. MILLER.

A Practical Text-Book of the Diseases of Women, by ARTHUR H. N. LEWERS, M. D., F. R. C. P. Seventh edition. Paul B. Hoeber, New York, 1912.

This volume forms one of the "Practical Series" published by Hoeber. The present edition is considerably enlarged, mostly due to a broader discussion of cancer of the uterus and to numerous excellent illustrations and micro-photographs.

The author has aimed at retaining the clinical and practical characters of the book which have been found useful in previous editions.

A chapter worthy of special mention is that dealing with the mode of investigating a case. It gives a fair illustration of the author's chief aim throughout the book, viz: diagnosis. Many well-chosen case histories are introduced, and the operative findings described in detail and by drawings.

The book has many excellent features, but can hardly be classed as a text-book for students. It should find favor among practitioners who desire a convenient hand-book. MILLER.

A Text-Book on the Practice of Gynecology, by WILLIAM EASTERLY ASHTON, M. D., LL.D. Fifth edition. W. B. Saunders & Co., Philadelphia, 1912.

When the first edition of this book appeared in 1905 an English reviewer said of it that America could already boast of possessing many of the big things of the earth, and could now add to the number a book on gynecology weighing about seven pounds. The size of the book seemed to impress him more than its contents.

The reason for the volume is well set forth in the author's preface, who believed there was a need for a book which takes nothing for granted in describing gynecological diseases—a book which not only states what should be done in every case, but also gives directions and illustrations so explicit that they may be intelligently and easily followed.

That there existed a need for such a book is proven by the rapidity with which it has become a text recommended in many of our leading schools and a work of ready reference by practitioners.

The present edition has been thoroughly revised. The chapter on the "Blood in Relation to Surgery" has been changed to conform to the recent advances in hematology.

Dr. Keating-Hart's method of thermo-radiotherapy has been introduced, as well as directions for using X-rays in treatment of fibroid tumors of the uterus.

It is only necessary to say that Dr. Ashton has added all the recent advances in gynecology with the same attention to detail that characterized previous editions. MILLER.

Pharmacology and Therapeutics, by H. C. WOOD, JR., M. D. J. B. Lippincott Company, Philadelphia and London, 1912.

We have here the successor to the well-known text-book by the author's father, a book whose popularity was maintained through several decades. In its new form and arrangement this work maintains the high standard of its predecessor. The treatment of the various drugs, while at times rather too concise for completensss, is, in general, clear and decisive. We note with satisfaction the inclusion in this work of the newer knowledge of the fashion in which digitalis acts in certain pathological conditions, but feel that the author might with profit have discussed this very important matter more completely. J. T. H.

Digestion and Metabolism, by ALONZO E. TAYLOR, M. D. Lea & Febiger, Philadelphia and New York, 1912.

On the initial page it is stated that this book is for "students and physicians," and it is indeed a valuable work for those physicians who are students as well as physicians. While much of it is hard reading, it is also interesting, and supplies the reader with a well-digested mass of information of much value, some that is old and much that is new, which, as far as the reviewer knows, is not collected together in any other work ot recent date.

The aim of the work is to describe chemical changes in normal and abnormal digestion and to explain the known metabolic modifications that food materials undergo within the body. An understanding of these things

is to-day necessary for our understanding and treatment of such diseases or conditions as gout, diabetes, autointoxication, and disturbances of digestion and nutrition. The matter is presented in a somewhat dogmatic manner, but this is no fault in a book of this type, for prolonged discussions of the evidence bearing on moot points is often wearisome and seldom profitable to the reader. Taylor's views on certain matters are not always in accord with what others of us believe; for example, if he has mentioned the newer conceptions of the interrelationship of pancreas, thyroid and adrenal in disturbances of carbohydrate metabolism, the reviewer has failed to find it. The sections on fever, on the physiology of gastric digestion, and on intestinal autointoxication, have particularly interested the reviewer. Taylor's apparent estimate of the clinical significance of the latter condition does not accord with the reviewer's, but he gives a remarkably clear, correct and concise presentation of the *known* facts bearing on this matter, and one which should serve to correct certain widespread misconceptions.

In conclusion, this work will be of value, "not on the shelf," but in the hands of the student physician. J. T. H.

Internal Medicine, by DANIEL BOVAIRD, JR., A. B., M. D. J. B. Lippincott Company, Philadelphia and London.

It has seemed to the writer, after many years' teaching, that there was a distinct need, both among students and practitioners, for a work which should give in compact form the more important facts of the subjects included in the domain of internal medicine. The author compares his book to a *framework of steel,* a strong outline to which the student can append the many details we carry to complete the building-up of his knowledge or grasp of internal medicine.

The book is certainly deserving of recommendation, occupying that most enviable position between the large treatises, which are too long, and the shorter works, which are mere catalogs of facts. DUPAQUIER.

Arteriosclerosis, by LOUIS M. WARFIELD, A. B., M. D. C. V. Mosby Company, St. Louis, 1912.

This small volume is not a reference book burdened with bibliography; it is a guide to a better appreciation and understanding of a most important subject, freed from learned discussions and opinions. It is a book for the general practitioner, with statements of the newest results and recent ideas on the subject (scattered in the literature) of arteriosclerosis, its etiology, pathology, diagnosis, prognosis, prophylaxis and treatment, with a special chapter on blood pressure, with a remarkable introduction by W. S. Thayer, M. D., and twenty-eight engravings. Teachers, also, who must present clearly this voluminous subject to their classes, shall certainly find in this book the most valuable aid. DUPAQUIER.

Muscle Spasm and Degeneration, etc., by FRANCIS MARION POTTINGER, A. M., M. D., LL.D. C. V. Mosby Company, St. Louis, 1912.

A monograph whose object is to help make earlier and more accurate diagnoses in intrathoracic inflammations. It contains, with a few changes, the same material as that which appeared in *Brauer's Beiträge zur Tuberkulose,* Band XXII, Heft 1, 1912; but there are also in it original observations made by the author during the past three years, observations and practical suggestions based on several thousand physical examinations.

The attempt is to appreciate early changes in the muscles covering the

apex, and in the diaphragm, as guides to early diagnosis of tuberculosis—a quest which cannot cease. Even though it were based purely on theory, for the present properly worked out, it may lead to some results of value. DUPAQUIER.

Symptoms, and Their Interpretation, by JAMES MACKENZIE, M. D., LL.D. Paul B. Hoeber, New York.

The second edition of a very original work (which has been translated into other languages) on a method of examination described in the book and ascertained by numerous members of the profession to be a real help. While some views have been justly criticized from the clinical standpoint, it is hoped by the author that his ideas will lead to the understanding of visceral pain. DUPAQUIER.

Flint's Physical Diagnosis, by HAVEN EMERSON, A. M., M. D. Lea & Febiger, Philadelphia and New York, 1912.

The sixth edition, revised and enlarged, of Flint's manual of auscultation and percussion. The particular need which this book will fill is the demand of the students and graduates for simplicity, directness, exactness and authority in dealing with physical signs. DUPAQUIER.

The Pituitary Body and Its Disorders, by HARVEY CUSHING, M. D. J. B. Lippincott Company, Philadelphia and London.

The growing study of the ductless glands is creating new lanes of thought in the philoophy of medicine, and in time it may lead to a revision of the ideas of practice. The more the ductless glands are studied, the more wonderful seems their relation to the economy, and particularly the control, of growth and functions. One by one these glands are being singled out for exhaustive research, and the field increases rapidly.

All the more welcome, then, is this academic presentation of the pituitary body by Cushing, who has devoted some years to its particular study. It is not given to the reviewer that degree of appreciation of the technical parts of the work which could allow a proper critical description of the text, but no one can read the book without a sense of intense interest at all times.

Insignificant as the pituitary body may be in its anatomical relations and dimensions, here it stands out as the control of many senses and centers, and here it is made to stand for the balance-wheel of development, just as the thyroid has recently been called the "pacemaker" of the body.

The subject is not exhausted by the author, who presents a considerable number of cases, showing the relation of the pituitary gland to deformities in growth, acromegalic development, hypersecretions of congener glands, disturbances of sight and other senses, infantilism, and a host of other disorders. No organ seems to have escaped the clinical record in this book, and, as the observation of the disturbances of this gland grows, there may be many other disorders of origin, now unknown, which may be attributed to this vicariously disposed basal gland.

"It is quite probable that surgery will, in the end, come to play a less, rather than a more important rôle in ductless gland maladies. This Utopia, however, will be reached only when a sufficient understanding of the underlying etiological agencies enables us to make more precocious diagnosis." Thus, in brief, does the author dispose of the conclusions as to the relief of the diseases and disorders of the pituitary, but, none the less, he reviews in careful detail all that has been done until now.

A full bibliography is appended, which will serve an excellent purpose for those wishing first-hand information. The illustrations are numerous and illuminating, and the whole make-up adds to the value of a remarkable contribution. DYER.

Practical Anatomy. An Exposition of Gross Anatomy from the Topographical Standpoint and a Guide to the Dissection of the Human Body, by JOHN C. HEISLER, M. D. J. B. Lippincott Company, Philadelphia and London.

The practical way in which every detail in this book is handled will make it a good laboratory compendium. The illustrations are numerous and excellent.

The arrangement of the material of the book in a regional fashion will appeal to the physician who wishes to review his anatomy with reference to its practical usefulness.

Altogether a commendable guide. DYER.

A Treatise on Diseases of the Hair, by GEORGE THOMAS JACKSON, M. D., and CHARLES WOOD MCMURTRY, M. D. Lea & Febiger, Philadelphia and New York.

For many years Jackson's book on Diseases of the Hair and Scalp was the common reference book of those interested in the subject. It is a matter of congratulation that he has seen fit, with the co-operation of so thorough a student as Dr. McMurtry, to offer a new book, and one full of valuable material.

The book is modern in all particulars, not only presenting an exhaustive list of diseases of the hair, but, in the consideration of each, the views of modern pathology and therapy are given.

Over fifty pages are devoted to ringworm of the scalp—rather a large concession to one topic, but the exposition must be of interest to the general reader who has not followed the work of Sabouraud, which is largely reproduced.

The illustrations are exceptionally good, and altogether make the book more valuable for study and reference.

Another point of note is the full place given treatment, which here is practically presented, with diversities given where justified. In this particular the general practitioner will be interested, and probably encouraged, with so much help, to take some part in the treatment of these diseases, so often relegated by the same general practitioner to the quack or the drug emporium. DYER.

State Board Examination Questions and Answers of the United States and Canada. Fourth edition. William Wood & Co., New York.

We are always glad to note the appearance of this handy book for medical graduates intending to go before State Boards. Nearly 800 pages are devoted to the questions and answers, which are arranged according to the States, and in alphabetical order. We note the fact that no questions are given from the Louisiana State Board—probably an oversight on the part of the publishers. Florida, Oklahoma and some other States are likewise omitted. DYER.

For and Against Experiments on Animals. Evidence Before the Royal Commission on Vivisection. By STEPHEN PAGET, F. R. C. S. Paul B. Hoeber, New York.

Beginning with an introductory chapter by the Earl of Cromer, reviewing the reasons for the work of the Commission, the rest of the book is made up of a compilation of evidence adduced by the Commission. Both sides are presented, and the findings of the Commission are set forth as a conclusion of the published account. The subject-matter is of much interest, and is bound to serve, hereafter, for reference whenever vivisection is put on trial. DYER.

The Wassermann Reaction, by JOHN W. MARCHILDON, B. S., M. D. C. V. Mosby Company, St. Louis.

A purely personal presentation of the technic of the Wassermann procedure, practically given, with illustrations and tables of direct bearing on the question involved. The introductory pages and the final review of other diseases than syphilis giving the reaction are superfluous, and, if the author produces another edition, a condensation of the practical part into a laboratory guide would make the work more desirable and more acceptable. DYER.

Making Good on Private Duty. Practical Hints to Graduate Nurses, by HARRIET CAMP LOUNSBERY. J. B. Lippincott Company Philadelphia and London.

More such books should be written, and all nurses should digest the contents of this little book for guidance, both when they begin to follow their vocation and often afterwards. It is full of good advice and full of practical and helpful information. DYER.

A Manual of Pharmacy for Physicians, by M. F. DELORME, M. D., Ph. G. Third edition. P. Blakiston's Son & Co., Philadelphia.

Not only an excellent text-book for the medical student, but also a practical guide for the physician, this little book contains a large amount of valuable information clearly put. Few graduates in medicine know how to write prescriptions, and any simple book which can easily supply this deficiency must be welcomed. Such a desideratum this book fulfils. DYER.

A Practical Treatise on Fractures and Dislocations, by LEWIS A. STIMSON, M. D. Lea & Febiger, New York, 1912.

This is the seventh edition of the work. In the last edition the author made but simple mention of the operative treatment of recent fractures. This edition deals fully with the subject, and sounds a warning note of its dangers. The advice from such an authority must bear weight. The admonitions of the author are timely; there is no branch of surgery to-day demanding more care as to technic, and which should be undertaken only by men of skill and experience. The bad results generally reported are due in a great measure to the faulty technic, and not to the methods laid down by Lane and other eminent men who advocate this work.

The reference to the open method for dislocations is also timely. Not enough of this work, especially on dislocations of the hip, has been done to perfect the technic, but this will come in time. A few other additions to the work make it, probably, the most valuable text-book published on the subject to-day. The author needs no commendation to the profession. MARTIN.

Recent Methods in the Diagnosis and Treatment of Syphilis, by CARL H. BROWNING, M. D., and IVY MCKENZIE, M. A., B. Sc., M. B., Ch. B. Lea & Febiger, Philadelphia and New York, 1912.

This work is a product of Glasgow, and in his preface the author acknowledges receipt of numerous grants from the Carnegie Fund.

Part I treats of the diagnosis of syphilis by the serum reaction, and is divided into eight chapters, treating of hemolysis, the method of carrying out the reaction, the theory of the reaction, and its clinical application.

Part II, composed of seven chapters, covers the experimental basis of treatment, the chemistry, administration and effects of salvarsan; a review

of the literature on treatment, and the authors' own observation on a large number of cases treated by them. No mention is made of neosalvarsan, as evidently the book was written before its introduction.

The reviewer is pleased to note the following positive expression by the authors in their conclusions:

"In no case can absolute assurance be given that a cure has been effected."

Messrs. Browning and McKenzie have prepared a valuable summary on the question, accompanied by a most useful exposition of their own views formed after considerable experience and observation, thus giving us a timely, succinct and comprehensible book. C. C.

Publications Received.

WM. WOOD & CO., New York, 1912.

A Practical Medical Dictionary, by Thomas Lathrop Stedman, A. M., M. D. Second edition, revised.

Physical Diagnosis, by Richard C. Cabot, M. D., Fifth edition, revised and enlarged.

P. BLAKISTON'S SON & CO., Philadelphia, 1913.

The Practice of Obstetrics, by J. Clifton Edgar, M. D. Fourth edition, revised.

WM. M. LEONARD, Boston, 1913.

A Synopsis of Medical Treatment, by Geo. Cheever Shattuck, M. D.

F. A. DAVIS COMPANY, Philadelphia, 1912.

Genito-Urinary Diseases and Syphilis, by Henry H. Morton, M. D. Third edition, revised and enlarged.

Text-Book of General and Special Pathology, by Henry T. Brooks, M. D.

J. P. LIPPINCOTT COMPANY, Philadelphia and London, 1912.

Building a Profitable Practice, by Thos. F. Reilly, M. S., M. D.

LEA & FEBIGER, Philadelphia and New York, 1912.

Progressive Medicine, edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. December 1, 1912.

Miscellaneous

Second Annual Report of the State Charities Commission. (Illinois State Journal Company, Printers, Springfield, Ill., 1912.)

Reports of the Department of Sanitation of the Isthmian Canal Commission for the Months of August and September, 1912. (Washington Government Printing Office, 1912.)

Public Health Reports, Nos. 45, 46, 47, 48, 49. (Washington Government Printing Office, 1912.)

Quarterly Bulletin of the Louisiana State Board of Health: Official Registrations.

Index-Catalogue of Medical and Veterinary Zoology, by Chas. Wardell Stiles and Albert Hassell. (Washington Government Printing Office, 1912.)

Organization, Powers and Duties of Health Authorities, by J. W. Kerr, M. D., and A. A. Moll, A. B. (Washington Government Printing Office, 1912.)

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
For November, 1912.

Cause.	White	Colored	Total
Typhoid Fever	6	2	8
Intermittent Fever (Malarial Cachexia)	2	------	2
Smallpox	------	------	------
Measles	1	------	1
Scarlet Fever	------	------	------
Whooping Cough	------	1	1
Diphtheria and Croup	14	2	16
Influenza	9	6	15
Cholera Nostras	------	------	------
Pyemia and Septicemia	------	------	------
Tuberculosis	33	40	73
Cancer	19	11	30
Rheumatism and Gout	------	1	1
Diabetes	4	1	5
Alcoholism	3	2	5
Encephalitis and Meningitis	3	------	3
Locomotor Ataxia	1	2	3
Congestion, Hemorrhage and Softening of Brain	20	4	24
Paralysis	5	2	7
Convulsions of Infancy	1	1	2
Other Diseases of Infancy	14	3	17
Tetanus	------	5	5
Other Nervous Diseases	4	5	9
Heart Diseases	58	52	110
Bronchitis	2	4	6
Pneumonia and Broncho Pneumonia	18	16	34
Other Respiratory Diseases	4	2	6
Ulcer of Stomach	1	1	2
Other Diseases of the Stomach	10	2	12
Diarrhea, Dysentery and Enteritis	24	16	40
Hernia, Intestinal Obstruction	2	------	2
Cirrhosis of Liver	7	5	12
Other Diseases of the Liver	2	3	5
Simple Peritonitis	------	------	------
Appendicitis	3	------	3
Bright's Disease	26	29	55
Other Genito-Urinary Diseases	4	6	10
Puerperal Diseases	3	3	6
Senile Debility	2	1	3
Suicide	3	------	3
Injuries	26	18	44
All Other Causes	40	15	55
Toval	374	261	635

Still-born Children—White, 28; colored, 36; Total, 64.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 16.50; colored, 31.01; Total, 20.43.

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

Mean atmospheric pressure.....30.20
Mean temperature.....59.3
Total precipitation.....2.50 inches
Prevailing direction of wind, northeast

New Orleans Medical and Surgical Journal.

VOL. LXV. FEBRUARY, 1913 No. 8.

Original Articles.

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

Observations of Medical Interest in the Canal Zone*

By OTTO JOACHIM, M. D., New Orleans.

A journey for pleasure and recreation to Panama and Jamaica in the month of July would in all probability meet with the theoretical disapproval of all, except those who by personal experience know, that the tropics, so far as the Isthmus of Panama and Jamaica are concerned, are for the most part pleasant in July, enjoyable and less subject to extremes of temperature than many sections of the United States. During the week from Thursday, July 11 to July 18 the night temperature fell at Ancon, where the hotel is located, as low as 70°, while the lowest temperature during that week in New Orleans was also 70°. The highest temperature in the Canal Zone during that particular month was in Colon, 89°, and in Ancon, 94°. In New Orleans during the same week the temperature reached maximum 95°, minimum 70°; in New York during July the maximum was 93°, minimum 58°.

A lively breeze from the North is usually prevailing on the Isthmus, and on account of this the Culebra hills are especially

* Read before the Orleans Parish Medical Society, November 11, 1912.

delightful. Exercise in the sun, after 10 or 11 o'clock, furnishes full acquaintance with tropical heat, to be sure. This we experienced on a tour of sanitary investigation, while climbing around the hills and forcing our way through the tall grass, while out with Dr. Orenstein, who is Assistant Chief Sanitary Inspector. The kindness of this professional brother, who hails from Philadelphia, and who has been on the Isthmus for the past six or seven years, made this half-day journey from 6:35 a. m. until noon extremely pleasant and instructive, as he presented to us a store of information about the sanitation of the Canal Zone, of the Canal itself, of the tropics and of conditions in the tropics. Another hot excursion, full of enjoyment and perspiration, took us to the summit of an unpronounceable mountain on the Island of Toboga, 1,000 feet above sea level.

Col. Gorgas was the kind host and leader in this instance. He took some friends and myself over to the Island in the little steamer attached to his service, and after due preparation set the pace up a steep trail in the heat of the day. The beautiful near and far view we had, after we reached the top of the mountain, repaid us fully for the exertion. Far toward the East and West the mountains of the Isthmus of Panama, Pearl Island more directly East, in front the beautiful Bay of Panama, dotted with many islands in deep green crowned palms. This view from the height of 1,000 feet surrounded by the deep blue waters of the Pacific Ocean is an impression glorious and lasting. On the top of this mountain I experienced the most refreshing and reviving breeze I have ever encountered at any time or place. On the shore of this island, which rises abruptly out of the water, the sanitary department of the Canal Zone maintains a sanitarium for convalescents, accommodating about five per cent. of the total hospital capacity of the main hospitals of the Canal Zone. Those white employees requiring such care are sent there free of charge for one or two weeks, and judging by the beautiful location and equipment, I know of no better arrangement for those in need of it. This island is about eleven miles due South of Panama in the Pacific Ocean, and has an average rainfall per year of but 30 inches. The city of Panama itself and its surroundings, only 11 miles north, have an average rainfall per year of 70 inches, and the city of Colon, on the northern entrance of the Canal, 50 miles to the north, has 170 inches average rainfall per year.

It is perhaps well to mention here that the general direction of the Canal is North and South, more exactly slightly Southeast. The Isthmus itself runs East and West for over a hundred miles, and Panama, or rather the Southern terminus of the Canal at "Balboa," is twenty-three miles East of Colon, and the Canal Zone is as far East of New Orleans as Charleston, S. C., or Pittsburg, Pa. A line drawn South from New Orleans or the 90° meridian divides the Pacific Ocean and leaves entire South America to the East of it. The Canal Zone, therefore, works by Eastern time. The prevailing winds in Colon and Panama blow from the North and are very refreshing, especially during the rainy season. There seems to be, however, according to Dr. Orenstein's observation, of late years since the Canal work is proceeding, an equalization of seasons, more rainy days occurring in the dry season and more dry days in the wet season than former records indicate. Our own experience, so far as it permits of any expression of opinion, is that the wet or summer season in the Canal Zone is neither oppressive nor unbearable, but pleasant and enjoyable for the most part. Not the least part which contributed to our comfort and pleasure was the practical absence of mosquitoes. It was not always so. The control of the mosquito plague, and with it the control of malaria and yellow fever, are victories of peace and of scientific effort more glorious than the greatest victories ever won on the field of battle and as far reaching as the greatest conquest of history, inasmuch as these achievements open for civilization and uplift and humanity vast and fertile regions of the globe in the tropics, which have heretofore been uninhabitable to the white races. These conquests have been achieved without the great sacrifice of the battle field, without the glory of the brave soldier who died in a cause of which he knew but little, and without the clamor of the returning victor. But not entirely without sacrificing life have these great deeds been accomplished. Those who risked and lost their lives during the researches for the establishment of these scientific facts are the kind and sort of heroes of a newer and worthier conception of the word and will leave an impress upon posterity of the higher and noblest kind of bravery. Theirs was the kind of quiet courage of which we had other examples during yellow fever epidemics in the city when doctors and nurses lost their lives in the pursuit and devotion to duty.

While on the Isthmus I met a party of engineering experts

from Europe, who were studying the problems encountered in the construction of the Canal from an engineering standpoint. Professor Hilgard of Zurich, Switzerland, called on Colonel Gorgas and greeted him by saying that he was anxious and proud to meet the man who made the building of the "Canal possible." This, gentlemen, is a true and complete statement of fact in every particular. Tremendous is the engineering work that is being carried on, impressive in its methods and results and wonderful in the extent and detail of its organization, solving great problems of engineering, overcoming difficulties not heretofore met. The deserved glory of the Chief Engineer rests, in my humble opinion, chiefly upon the splendid and thorough organization he has evolved, which takes care of and regulates with clock-like precision every detail of this enormous work. It was to me, and perhaps to others, a surprise and astonishment to observe the great amount of efficient and creditable work the French had accomplished before giving up the Canal construction. The plan and work now being done by the American Government is essentially an improvement and development to higher efficiency of the French methods. There is yet in use by the Engineering Department over one hundred locomotives used by the French, and some of the dredges are still giving good service. The amount of work accomplished by the French with machinery that appears toy-like as compared to the machinery now employed, is really astonishing. This great work could have been accomplished by the great DeLesseps and his co-workers had it not been for the enormous toll of life and health, which work on the Isthmus at that period exacted. According to Col. Gorgas' statement, the French lost, between the years 1881 and 1889, over 22,000 laborers and employees, or about 240 per thousand per year. The proportion of laborers disabled by non-fatal diseases was so enormous that during each year the entire force was compelled to become inmates of the hospital for varying periods, and this unquestionably lowered the capacity for work of the whole force. It was an exhibition of valor of no common sort for a French laborer or employee to go to the Isthmus, knowing that he would acquire malaria or yellow fever and that nearly every other man would die from it. To quote Col. Gorgas, "the French, with an average force of not more than 10,200 men, lost in nine years 22,189 men; we ourselves, with an average force of 33,000 in nearly the same length of time have lost less than 4,000. The death rate among

the French employees was more than 240 per 1,000; our maximum death rate in early days was 40 per 1,000; our rate at present is 7.5 per 1,000. From a maximum of 821 per 1,000 taken sick with malaria we have reduced at present to 187 per thousand. But most important of all, yellow fever has been entirely banished. We have had but a single case since May, 1906, now a lapse of six years. The general death rate has been reduced from a maximum of 49.94 per 1,000 to a rate for 1910 of 21.18 per 1,000, comparing favorably with many parts of the United States." And again he says, "I think it is due to the French to say that we could not have done a bit better than they, if we had known no more of the cause of these tropical diseases than they did."

In the demonstration of these possibilities and in the achievement of such splendid results lies the greatest good to humanity which the construction of the Isthmian Canal can confer. And to this achievement the whole world is freely welcome without restricting legislation or international arbitration. For his work in the elucidation of the principles of sanitation in malaria and yellow fever which infested localities, for their practical application and for results achieved, the name of Dr. Gorgas will forever stand out as a benefactor of humanity. This work is based upon the classic experiments of the United States Army Board of which Captain Walter Reed was chairman, and of which Lazear and Carrol, of honored memory, were members. From this foundation developed the work done in Havana under Col. Gorgas and later in the Canal Zone. In the Canal Zone the health of the population is taken care of by the Sanitary Department, headed by Col. Gorgas. The various demands of this service are looked after by different departments called divisions. The Quarantine Division looks after all matters of quarantine at either end of the Canal, working in conjunction with the Public Health and Marine Hospital service, on the efficient lines on which this service is carried on at all our quarantine stations. The health divisions for the cities of Colon and Panama perform the functions of city boards of health in an amplified form. Both cities are outside of the Canal Zone and governed and administered by the Republic of Panama. The health conditions in both cities, however, are under the regulation of the government of the Canal Zone either directly or by treaty regulation. Both places were put in thorough sanitary condition by the sanitary department of the Canal Zone government. Colon

is still administered by this agency, and is a clean city. In Panama these functions were turned over to the local government, and even to the casual observer there is an immense difference in favor of Colon. Adjoining Panama, within the Canal Zone, is the American settlement of Cristobal, and also within the Canal Zone is the American town of Ancon. It is needless to say that there is a delightful cleanliness and order prevailing, the plant and flower culture of both of the places contrasting strongly with the conditions just across the street.

The Hospital Division has under its control the two base hospitals at Colon and Ancon with about 25 small hospitals along the line of the Canal, having from 20 to 40 beds each, where patients are kept until they can be removed to the base hospital or cared for if they are too severely sick or injured to be moved. The base hospital at Ancon, for which the site was selected and many of the buildings yet used erected by the French, has a normal capacity of 1,200 patients. Its usual capacity is about 1,000 patients. It is beautifully located on the windside of and surrounding in part Ancon Hill. The hospital grounds are beautifully parked and splendidly drained. The residences of the executive officers and doctors in the service of the sanitary division are within the grounds and they are sufficiently attractive from every point of view that it need not be considered a hardship for anyone to live there. The hospital itself is adequately equipped for the treatment as well as the study of diseases coming under its care and observation. Our Doctor Bass, who left on the day of my arrival, is able to tell you more than I can about the adequacy of arrangements for scientific effort and the kind of work which is being done there. I have seen some excellent surgical work done in the operating department erected by the French, and brought up to modern requirements by the present administration. Between 6 to 18 operations are the daily average. The surgical service is in charge of Surgeon Dr. H. B. Herrick, who operates with the help of an excellently trained corps of assistants with speed and thoroughness and fine judgment. The eye, ear, nose and throat department is a considerable establishment, and splendidly equipped. It has at its disposal two large wards, well filled with patients. In the eye, ear, nose and throat department they had during a relatively small month in March of this year 121 refractions, 69 operations, and over 1,100 consultations of patients not confined to bed corresponding to our outdoor

patients. Dr. D. F. Reeder, ably assisted by Dr. H. V. Dutrow, is in charge of this department. Dr. Reeder kindly demonstrated to me his method of tonsilectomy, which he recently published in the *Laryngoscope.* His method has merit, and the operation as done by him under local anesthesia is performed completely and carefully. I am indebted to him for many courtesies, and I attest to his lively and active interest in the progres of our specialty. The sanitary work in its strict sense is administered for the entire Canal Zone from the Adminstration Building, which is a splendid concrete structure, located within the hospital park on a beautiful site overlooking the Bay of Panama. Here Col. Gorgas and his efficient staff have their headquarters. I take great pleasure in giving expression to sincere appreciation and gratitude for the courteous treatment and hospitality received from Col. Gorgas, Major Noble, Major Phillips and Dr. Orenstein, Assistant Chief Sanitary Inspector. The methods pursued by this department to overcome the mosquitoes were necessarily of the greatest interest to me, as many of these methods can in all probability be applied to our needs with great advantage. The splendid results achieved there can be duplicated and accomplished with expenditures well within the means of our commonwealth. The return on an investment of this kind in lessened death rate and in improved health cannot be given in money value. In the Canal Zone the expense has been slightly less than one cent per capita per day. The fight against the mosquito embraces all of the means employed by our efficient, though handicapped, board of health, and some others besides. Dr. Orenstein published in the March number of the *American Journal of Public Health* a concise and comprehensive paper upon the methods of sanitation pursued in the Canal Zone. Many of these methods I saw in actual operation during the inspection trip taken with him. Only one I will mention, as it is perhaps the latest and most efficient method I have ever seen of keeping trenches and gutters free from mosquitoes and larvæ, and keeping down excessive vegetation on their sides. They apply crude petroleum having an asphalt base with a pressure apparatus in form of a water sprinkler and set it afire as the grass becomes saturated. In burning this an asphalt coating very hard to remove deposits on the sides and bottom of the ditches and forms an uncongenial place for the development of mosquito life. This, I think, is worthy of investigation by our authorities.

In giving you these bird's-eye views descriptively I take pleasure in throwing some cards, selected for me by Dr. Reeder, on the screen as examples of conditions in the Canal Zone.

The perusal of the paper published by Dr. Orenstein is well worth while the time it requires, and a copy in my possession is at your disposal.

An Interesting Neurological Case, Demonstrating Associated Movements of the Upper Extremities.*

By E. W. PHILLIPS, M. D., Assistant Surgeon, U. S. S. "Minnesota."

With Dr. Anerson's permission I am presenting for your consideration a case of defective nervous development of an *unusual* sort.

The patient is a well-developed and otherwise healthy man of 26. His family history throws no light on the case; on his father's side he is descended from a robust and long-lived race of Ohio farmers. His mother's family is of a different type. It is an old but not a robust stock, of which a careful genealogical record has been kept. The line includes a bishop and numerous professional men. Both maternal grandparents suffered from heart disease; they had four children, all girls; two of these, one being the patient's mother, are ill of cardio-nephritis, and a third died of it.

One great-uncle on the maternal side had deformed feet.

Our patient is one of a family of ten children, three of whom died in infancy. The others were normal, except one brother, who has a club-foot. All are in excellent health.

Personal History.—Aside from his developmental anomaly, the past history of this man is unimportant. He had the usual diseases of childhood, and when 16 years old a light attack of smallpox. His habits are good. He had one uncomplicated gonorrhea, and denies syph.

Soon after birth it was noticed that the patient's hand and forearms were abnormal. From the elbows down they were white, cold and completely paralytic. Whether sensation was present in the hands is unknown. So far as the patient knows, sensory impulses from the hands were always normal. When the child was a year old he began to move his hands, which gradually assumed the normal color and appearance. But whatever movement he made with either hand or wrist was duplicated on the opposite side. Only

* Read before the Orleans Parish Medical Society, December 2, 1912.

the hands and wrists were so affected. His forearms and other parts he moved naturally. The child was seen by several physicians, and at their advice attempts at educating the muscles of his hands and arms were begun. The results were discouraging. At five years of age he was a shy, backward, undersized youngster who had to be fed like a baby. During the next year he learned to feed himself, but still had to be dressed. He was slow in learning to talk. (He still speaks with a drawl, which is a family trait.) At six he began going to school, where he learned nothing. Not until he was in his ninth year could he dress himself alone.

Though considered dull in school his family thought him bright enough. In public his natural bashfulness was so accentuated by the consciousness of his infirmity that he got on badly. He never could climb trees like the other boys, nor was he allowed to venture on ladders. He could not fight or wrestle or do any useful task. All this time his father patiently continued to train him in manual gymnastics. He was daily made to move the fingers and wrist of one hand, trying to hold the other still. He learned to play the violin in a peculiar fashion and to pick a few chords on the banjo.

In his tenth year he suddenly began to grow; at the same time his control over his hands became better. He advanced rapidly in his studies, and at fifteen finished the graded school. By this time he was able to do ordinary work, and did not attract attention by the eccentric—or rather, concentric—movements of his hands. He quit school, and went to work on his father's farm. Being so occupied he gave up the systematic training of his hands.

In this fashion he got on well enough for several years, until his father retired from farming and moved into town. Then the boy went to work in a factory, attempting to learn the trade of pad-maker. At the end of two months he had made no progress at all, and gave up. After a period of idleness he went to Chicago and succeeded in getting by the recruiting officer and shipping in the navy. Here in a general way he proved intelligent and apt at the work; he concealed his infirmity from the officers, though the men of his division knew it and favored him in work about the ship. But at times it was necessary for him to climb masts and smoke-stacks. This, of course, he did at the peril of his neck; for whenever he lets go with one hand the other also relaxes its hold. Worse yet, it became his duty to lower another man on a line. He

had to let the rope slip through his hands, being unable to pay it out without dropping the man. Accordingly he studied the quartermaster's job, and was detailed as an acting quartermaster. Part of his work was to stand by the wheel and jot down in a notebook the changing courses steered by the helmsman. He held the notebook in his left and—so—but whenever he tried to write his other hand jerked the book about so that his writing was illegible. So he came to the doctor and owned up. He is, of course, not a fit man for the navy. Pending his medical discharge he was detailed as a side-boy. He salutes with both hands—one up, the other down. With his left hand he does very pretty mirror writing; here are some specimens.

Now, neither Dr. Anerson nor myself can qualify as a neurologist. So we turn the patient over to you gentlemen, for examination, with the pleasant certainty of learning things about the case.

In closing permit me to express our appreciation of the great courtesy which has given us this opportunity, as well as the pleasure of meeting the members of the Orleans Parish Medical Society.

A Case of Acute Nephritis, with Uremia, Following Salvarsan.*

By P. JORDA KAHLE, M. D., New Orleans.

The available literature shows comparatively few serious disturbances of the kidney following the intravenous infusion of salvarsan. The milder disturbances have been observed more frequently, and have varied in character and in intensity, according to the observations of various writers. Of the milder disturbances, Mulzer mentions transitory albuminuria, or cylindruria, without albumin, in fifty per cent of Schlesinger's cases; four cases of transitory albuminuria seen by Bering; and one observed by Finger. Geronne records a slight albuminuria for one or two days, while Volk and Lipschütz observed casts and albumin eight days after the injection of the drug. In Pick's cases, a diminished quantity of urine was found to be not uncommon, four to five hundred cubic centimeters of a specific gravity of 1015 to 1025.

Of a much more serious nature are the disturbances observed by Prof. Gaucher, Capt. Nichols, and Mohr. In these cases, the method of injection seems to have played an unimportant role in

* Read before the Orleans Parish Medical Society, December 14, 1912.

the subsequent damage to the kidney. These cases will be reviewed at some length because they are instructive, and because the case reported here has many points in common with them.

In Mohr's three cases of renal disturbance, ascribed to salvarsan, two had been given the drug by intramuscular injection, while the other had received an intravenous infusion. This latter showed "an acute nephritis, apparently parenchymatous," immediately following the injection. It was associated with other symptoms of arsenic poisoning, diarrhea and collapse, but the patient fully recovered, and by the fifth day the trouble had completely disappeared. His other two cases followed the intramuscular injection of salvarsan. One terminated fatally; the other had shown no change at the time of the report, in the urinary findings.

In Capt. Nichol's case uremia was responsible for the patient's death. The patient, in the active secondary stage, was given an intravenous infusion on June 26; this was repeated on July 7. All lesions healed rapidly, but on July 11, four days later, coma and convulsions set in and the patient died two days after, July 13, in spite of heroic treatment for uremia. The post-mortem showed an "intense hemorrhagic nephritis (possibly a latent or incipient nephritis made acute by the drug)."

In Prof. Gaucher's case, six decigrams of "606" were given intravenously on September 18. This was followed fifteen minutes later by vertigo. During the day the patient vomited and his temperature rose to 100.7°. The following day he was feeling well. On September 21, three days after the first injection, he was again given six decigrams of a solution of salvarsan, which same solution was also given to another patient, who showed no ill effects from it. At first the drug was well borne, but in the evening the patient complained of vertigo, headache, and nausea with vomiting. Later the temperature rose to 101.5. That night the patient vomited again and complained of pain in the epigastrium. On September 23 epileptiform convulsions set in, tonic and then clonic, during which the patient bit his tongue and foamed at the mouth. Later, he became comatose, his movements were incoördinate, his face was pale and covered with sweat; his pulse was 110 and his temperature dropped to 99.1. The patient died the next morning, September 24. In this case a diagnosis of uremia, resulting from arsenical poisoning, was made. The post-mortem showed the heart, the large vessels, and the lungs to be normal. The abdominal organs, ex-

cept the kidneys, were normal. The latter were found to be enlarged, hard, congested, the color of wine lees; the capsule was not adherent. The microscopic examination showed "an acute nephritis, epithelial degeneration, and destruction of tubules."

On October 13, Mr. M....., aged 22, single, presented himself for treatment. He denies any previous venereal infection. He has had "the mumps and the measles and was operated for hernia." He had the measles when he was fourteen years old.

The family history is negative except for his father, who died of "tuberculosis following pneumonia."

He now complains of a sore on his penis for the past five days. He had sexual intercourse three, fifteen and twenty days before the appearance of the sore.

Examination shows the left testicle to be normal, but there is a mass in the left scrotum which may be a hernia or a cystic hydrocele (not examined carefully). The right testicle is atrophied and drawn almost into the external ring. On the prepuce is a single oval sore as large as a dime. It is indurated, sloughing and necrotic, pale wine color in appearance. An examination for spirochetes shows many present. The blood examined by Dr. Lanford shows "a weakly positive Wassermann reaction when using the Tscherngubow modification and a negative reaction when using the original technique." The urine is clear and contains no albumin and no casts.

The following morning, October 14, the patient is given an intravenous infusion of six decigrams of salvarsan, prepared by Dr. Lobenhoffer, chemist at Touro.

October 15, the patient has had no discomfort and leaves Touro. The chancre is better.

October 16, the chancre is healing nicely and the patient feels well in every respect.

October 18, the urine is examined for albumin and casts with negative results. The sore is healing fast.

October 20, at 9 a. m., the second dose of six (6) decigrams of "606," prepared by Dr. Lobenhoffer, is given by intravenous infusion. At noon the patient felt well and took a hearty meal. He left Touro without orders that same afternoon.

October 21, the patient complains that he has been nauseated and that he has vomited more or less since taking food yesterday at noon. He feels dizzy and has slight headache. The urine is darker

than usual in color and possibly diminished in quantity during the past few hours, but is free from casts and albumin. The bowels have moved normally. There is a mild phlebitis at the site of the injection. The temperature is 99.4.

October 22, 9 a. m., the patient feels fine in every respect, and wants to go to work. His arm is not sore and his temperature is normal, 8 p. m. The temperature is 102.1, the pulse 112, the tension high. There is slight delirium. The urine is scant but is free from casts and albumin.

October 23, 10.30 a. m., the patient is comatose, but can be aroused. He complains of pain in the epigastrium and of great thirst. The bowels are loose, the mouth is dry, the breath is foul. There is occasional vomiting. There has been no urine voided since last night. The temperature is 102, the pulse is of high tension and rapid. There is muscular twitching. At about noon, clonic convulsions set in, during which the patient bites his tongue. The body and the limbs are covered by an erythema and an urticarial rash. These eruptions can be seen to spread rapidly, beginning at the margin of the hair and extending over the face and neck. The temperature is now 103. The convulsions continue for about half an hour and then give way to muscular twitchings which persist throughout the day.

October 24, 9 a. m., there has been no temperature since yesterday, 6 p. m. The patient has voided fourteen ounces of urine since midnight. He is now conscious and doing well. There is a slight cough. The eruption is less marked. An examination of the urine shows: cloudy, acid urine of a specific gravity of 1024, containing a slight trace of albumin, a few red blood cells, and many finely granular casts. The total amount of urine passed on this date is 44 ounces.

October 25, the patient looks well and feels well. The temperature and the pulse are normal and the eruption has almost disappeared. The total amount of urine for twenty-four hours is ninety-seven (97) ounces, with only a trace of albumin and no casts.

October 26, the eruption is gone and the chancre is healed. Total urine for twenty-four hours is sixty (60) ounces and contains no albumin and no casts.

October 27 and 28, the urine is normal except for showers of triple phosphates.

October 29 to November 30, the urine is normal in every re-

spect. There has been no eruption and the temperature and the pulse have been normal.

The points of interest in this case which might be emphasized are:

I. The Wassermann reaction was positive, when using the Tschernogubow modification, five days after the appearance of the initial lesion. This would indicate that the Wassermann can be of great value in clearing the diagnosis in early primary lesions in which the spirochetes can not be found because the lesions have been subjected to treatment. It is not claimed that a positive Wassermann would be invariably obtained in every case at such an early stage, but should it be, valuable time would be gained.

II. That great care should be exercised in the administration of salvarsan, bearing in mind that injury to the kidneys may follow even in cases where these organs are sound, whereas in cases of incipient or latent nephritis, the condition may be made acute by the drug.

III. That in making examinations of urine, before or after giving salvarsan, we should not be guided solely by the presence or the absence of albumin, because there may be serious lesions of the kidneys in which the amount of albumin is no index to the severity of the lesions present. Granular and finely granular, as well as hyalin casts, may be present in great numbers when albumin is absent, or present only as a trace. This observation is based not only on these cases, but on many other which have been examined in connection with other complaints.

IV. That although a diminished quantity of urine following the injection of salvarsan may be of no special significance, it should put us on our guard, more so, if accompanied by other disturbances such as vertigo and headache. In over one hundred and seventy-five injections given in private practice and in the clinics, a diminished quantity of urine was not infrequently observed. However, no serious complications followed except in the case reported here. Let it be noted that vertigo and headache were not present in any of the other cases.

V. That a rash, erythematous or urticarial, may be produced by salvarsan as it is being eliminated by the skin.

VI. That even when the kidneys have been severely damaged, all signs of trouble may disappear completely in a few days.

In closing I wish to thank Dr. Blakely and Dr. Dicks for the

careful and painstaking attention they gave my patient while he was at Touro.

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Developmental Defects of the Female Genitalia; Report of Five Cases.*

By H. W. KOSTMAYER, A. B., M. D., and MAURICE J. GELPI, A. B., M. D.

We believe that the comparative rarity of gross congenital abnormalties of the female genitalia is sufficient justification for a report of such cases. Our records in the outdoor gyneocological clinic of the Charity Hospital show that from May 1, 1911, to April 16, 1912, a little less than a year, 1000 women presented themselves for examination. Out of this number we collected but five cases or a little less than one-half of one per cent of gross faulty or abnormal development of the genitalia.

We shall first describe the cases individually, so as to bring out the interesting features of each one, and then take up the embryological side of the question, so as to show how these cases occur.

Before proceeding with the report of the cases, we wish to give special credit to Dr. Seebold, of this city, for the excellent drawings of the cases. These drawings represent the consensus of opinion of those of us who examined the cases, and we believe that

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they are in every respect true to life. The only exception to this is the fact that the skin, for esthetic reasons, was made by the artist white instead of black.

CASE I. First seen on the 26th of July, 1911.

Matilda L., colored, native of New Orleans, 35 years old. She was a well-developed, stout, well-formed woman. She never had a baby; never had a miscarriage. She stated distinctly that she never had menstruated in her life. This patient came to us complaining of a slight leucorrheal discharge and pains in the back, shoulders, knees and arms.

Examination.—Abdominal examination was negative. Examination of the external genitalia revealed a congenital absence of the labia minora. Bimanual examination showed a congenital absence of the uterus. The only palpable structure in the vagina itself was a rudimentary cervix about the size of the end of your little finger. This structure was situated at the usual site of the normal cervix. It was soft and velvety, and showed no evidence of the presence of a cervical canal. A single, undersized ovary was palpable on one side. This case also had a fistula in ano.

(Fig. I demonstrates this case.)

CASE II. First seen October 2, 1911.

We purposely take up this case next so as to contrast it with the previous one, with which, from the standpoint of the congenital defect, it is closely associated.

Bertha W., colored, native of New Orleans, age 15, single. She was an undeveloped, thin girl, strikingly undersized. She gave the history of never having menstruated. It was on account of her mother's concern in this regard that she came for examination.

The abdomen and vulva were normal. No difficulty was experienced in making a vaginal examination, as the hymen had been ruptured. We found in this case a very rudimentary uterus. This organ could be said to be practically absent, as the fundus and cervix together were not larger than an ordinary thimble. We did not attempt to determine whether there was a patulous cervical canal or not. We were not able, by our examination, to determine the presence of an ovary in this case. The probabilities are that the ovaries were entirely absent. The condition is well shown in Fig. II.

CASE III. First seen October 4, 1911.

Evelyn B., colored, age 21. She gave a negative history as to miscarriages and child-bearing. She stated emphatically that she had never menstruated. This patient was a well-formed, well-nourished woman, apparently normal in every respect.

Examination of the vulva and external genitalia showed them to be normal. Bimanual examination showed a congenital absence of the uterus. At the usual site of the cervix was present a very small, hard nodule, about the size of a marble. This body, probably a very rudimentary uterus, was apparently held between the vaginal mucosa and the peritoneum. The vaginal canal was perfectly smooth, up to the vault itself. Our records do no state whether we palpated ovaries in this case, but we believe that, from the general appearance of the woman, these organs must have been present.

(Fig. III demonstrates this case.)

CASE IV. First seen October 17, 1911.

Emma K., colored, native of New Orleans, age 27. She had never had a baby, never had a miscarriage. This woman stated that she menstruated regularly every month. The flow lasted from four to five days. Her last menstruation was on September 20, 1911.

She complained of intermittent leucorrhea and dysmenorrhea. The pains

I.

Illustrating Article of Drs. Kostmayer and Gelpi.

II.

ILLUSTRATING ARTICLE OF DRS. KOSTMAYER AND GELPI.

III.

Illustrating Article of Drs. Kostmayer and Gelpi.

IV.

Illustrating Article of Drs. Kostmayer and Gelpi.

lasted throughout the menstrual period and were sufficiently severe to make the woman take to bed every month. She complained also of pains in the lower abdomen and back. The abdominal pain was indefinite, and extended to both inguinal regions.

Abdominal examination was negative. Examination of the vulva revealed nothing of note. Vaginal examination revealed a perfectly smooth vaginal canal. No cervix was found protruding into the vagina. Behind the vagina, and lying in front of the rectum and somewhat displaced to the left side, could be palpated a full-sized, well-formed uterus. The rectal palpation confirmed the vaginal findings. The right ovary could be palpated, and was found to be enlarged and painful.

This was the only case of the series that we deemed fit for surgical attention, and she was accordingly admitted to the hospital. At the time of our original examination in the clinic, we got the impression that uterus was retroverted and fixed. When the case was operated upon by Dr. S. M. D. Clark, in whose service she was admitted, he found that the uterus was not fixed, and experienced no difficulty in placing it in slight anterversion by the round ligament method.

Under anesthesia, exploration of the vagina showed that what appeared to be the true vaginal vault, was in reality a diaphragm formed of a double fold of mucous membrane stretching entirely across the vaginal canal and entirely separating the upper portion containing the cervix, from the portion below.

The explanation of how the woman could menstruate under the circumstances was found in the presence of a fistulous tract extending under the mucosa.

This fistula was about one inch and a half long, and burrowed its way under the septum, thus affording a communication between the upper and lower vaginal cavities. It was situated on the left lateral wall of the vagina and somewhat posteriorly. (This case is well illustrated in Fig. IV.)

Case V. First seen on October 16, 1911.

Satima G., colored, native of New Orleans, age 18. This woman had one child two years old. There was no history of instrumental delivery or of any undue traumatism at the time of delivery. She had been a perfectly well woman up to two weeks before she came to consult us. At this time she began to complain of pains in the abdomen, low down, and especially on the left side.

Abdominal examination revealed nothing of note. Vaginal examination showed the presence of two distinct ridges or folds of mucous membrane lying in the median line, one on the anterior and the other on the posterior vaginal wall. The folds extended from the vaginal outlet to the cervix, dividing the vagina into two equal halves.

The free borders of the folds, while they met, were not adherent to each other, and, by pushing them aside, the examining finger could be passed from one side to the other of the double vagina.

Bimanual examination revealed the presence of a mass on the left side,

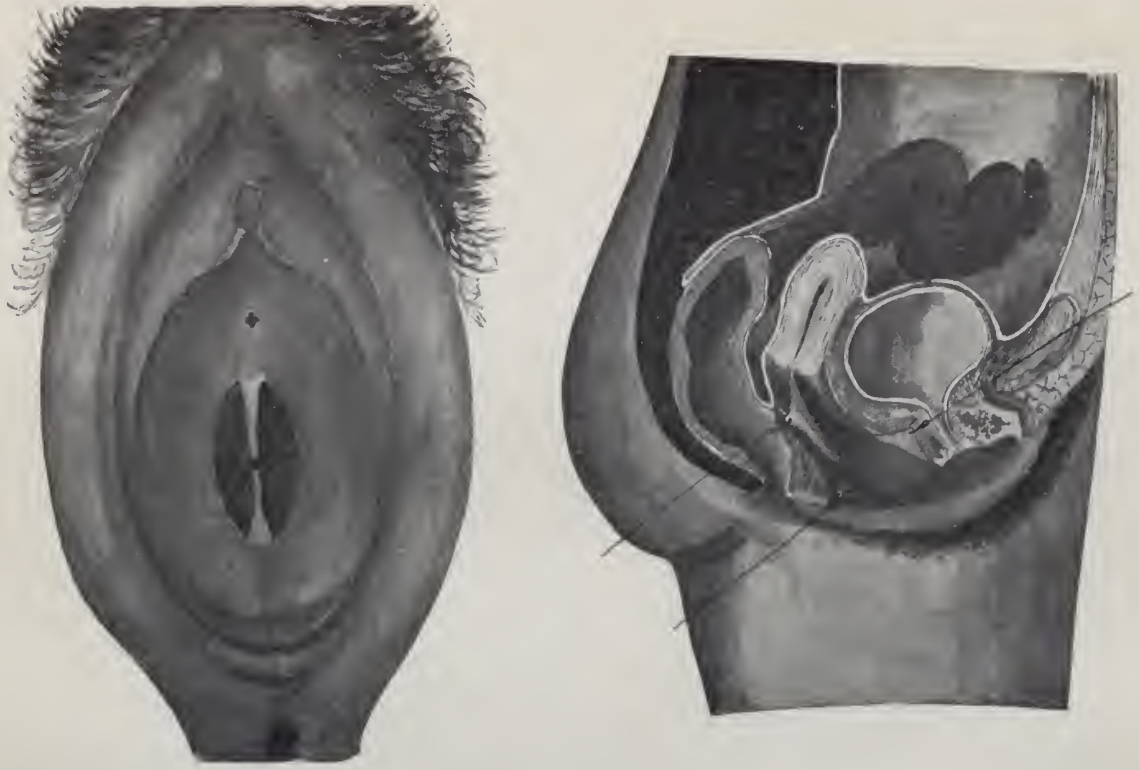
which we diagnosed as an inflammatory condition of the adnexa of that side. The vaginal abnormality is shown in Fig. V.

Summing up the cases as suggested in part by the classification of Frazier, of Philadelphia, we have the following table:—

	Total Number of Cases Seen, 1,000.	Cases.	Per Cent.
A.	Deformities of the uterus due to failure of *fusion* of the muellerian ducts.....	0	0
B.	Deformities of the *uterus* due to faulty *development* of the muellerian ducts..	3 I-II-III	.003
C.	Deformities occurring lower down in the urogenital tract, affecting especially the vagina.	2 iv-v	.002
D.	Cases showing more than one gross congenital abnormality	2 I-II	.002
E.	Total number of gross abnormalities in the series	5 I-II-III iv-v	.005

These cases are of some clinical interest, as seen in Case IV, for instance. Here it was possible to remove the septum in the vagina and suspend the uterus, giving this woman organs in which it would be difficult to recognize anything wrong, congenitally or otherwise. Of course, there is no treatment for congenital absence of the uterus or labia, nor for the case which was almost a double vagina. It would be very interesting to follow the case of absent ovaries, and give her extract corpora lutea, perhaps, but the roving gypsy-like life of these people make this difficult, if not impossible.

The most interesting feature of these cases, by far, is their etiology: just how and why these abnormalities occur. If we could answer why they occur, we have no doubt we could put together the constituents of a cell and give it life. Fortunately, comparative embryology teaches us fairly definitely how they occur. Both the excretory and reproductive systems are derived from the intermediate cell-mass of the gastral mesoderm. Very early in devlopment this cell-mass becomes thickened and projects into the body cavity, being known as the Wolffian ridge. From this ridge develop the pronephros, which always remains rudimentary in the human embyro, and its duct, the Wolffian duct, which undergoes a complete development, and plays an all-important role in the further growth of these organs; the mesonephros, or Wolffian body, which



V.

ILLUSTRATING ARTICLE OF DRS. KOSTMAYER AND GELPI.

appropriates the Wolffian duct as its own by emptying its tubules into it; the metanephros or kidney, arising as an off-shoot from the Wolffian duct; and, later, the Muellerian duct, communicating with the peritoneal, or body cavity above, descending longitudinally, and fusing below with its fellow of the opposite side to form one duct or tube.

The upper part of this Muellerian duct becomes the Fallopian tube, its communication with the peritoneal cavity becoming the abdominal ostium. The lower fused part of these ducts becomes differentiated into uterus and vagina.

Soon after the coalescence of the lower part of the Mullerian ducts, the part which is to be the vagina becomes "filled in," so to speak, with epithelial cells, to again become patulous at about the sixth month, by the breaking down of the central cells.

As early as the fifth week there is extruded externally the genital tubercle, a process from the urogenital sinus. This becomes the clitoris, the genital folds to each side being transformed into the small labia, the genital swellings, laterally, into the large labia.

Even so cursory a glance as this at the development of the genital organs throws much light on just what happened in the above cases.

Cases 1, 2 and 3, all undeveloped uterine bodies, to the extent of being practically absent, illustrate an arrest of the development of the upper part of the tube formed by the fusion of the two Muellerian ducts. In case 4 the "breaking down" process by which the vagina is made patulous was arrested, leaving epithelial tissue in the form of a septum between the cervix and vaginal orifice. Nature, of course, provided a fistula for the escape of the menstrual flow.

In case 5 the process of "resorbing" the walls of the duct which had come in contact to form the vagina was arrested, leaving a double fold above and below—a partial persistence of both Muellerian ducts, instead of their complete fusion into one.

Gentlemen, this was not an attempt at an exhaustive study of this subject—merely some ideas suggested by the cases. They interested us so much that we thought they might interest you.

The Management of Normal Labor.*

By A. C. KING, M. D., New Orleans.

It is not possible in the allotted time to do full justice to this most important subject, therefore I shall outline in a general way the management of a normal labor, omitting many details, which the individual will have to work out for himself. Any one can write all day on normal labor and then not finish.

In addition to ability to handle obstetrical work correctly, asepsis and antisepsis are the most important considerations, no matter if the case occurs in an institution, the home of wealth, or the hovel; and so long as the physician can find fire, water and vessels he certainly cannot be excused for lack of aseptic precautions. Asepsis is the keynote of success and spells life to the puerperal woman as surely as it does to the woman on the laparotomy table.

Considering the terrific mortality of sepsis in times past and comparing that mortality with the results of to-day, would it be possible for any one of us to retain his practice if we lost one out of every ten of our puerperal women? Samuel Weis deserves our thanks for reducing the mortality of sixty years ago from ten to less than one per cent., simply by chlorin solutions *alone,* and to the great Lister thousands of women owe their lives to-day. His antisepsis was father to our asepsis of the present time; certainly, then, our women of this day may consider as her best friends the steam sterilizer, the rubber glove and the man intelligent enough to put them to good use.

Less than twenty-five years ago the lying-in wards of our own Charity Hospital were so rotten with sepsis that temporary closure and renovation had to be resorted to in order to check its ravages. This debt we owe to Dr. F. W. Parham, who about this time introduced antiseptic surgical methods into this city, and taught the profession here the value of cleanliness in surgical and obstetric work.

Let us take up a case step by step. When engaged, what is the doctor's first duty? Attention to those great sewers of the human body, the kidneys, attention first, last and all time! The urine should be examined weekly after the fifth month, more frequently if necessary, for at any time acute nephritis with all of its disastrous consequences may occur, or a chronic condition may be

* Read before the Thirty-third Annual Meeting of the Louisiana State Medical Society, April 23-25, 1912, New Orleans.

lighted up and almost in a twinkling the woman is face to face with the greatest danger to which she can be subjected during pregnancy.

Remember that *absence* of edema is no *positive* guide to the kidney condition, nor does considerable swelling of the lower extremities necessarily indicate Bright's. Neither is the percentage of albumin *always* indication of threatened uremia, rather note the quantity of urea, look out for persistent headaches, disturbances of vision, high arterial tension, lassitude, epigastric pains and decrease of excretions; all these are danger signals of the worst kind and demand instant and vigorous attention. Remember that the average mother is entirely ignorant of the many dangers which beset her and depends upon her physician for help and advice (Shaw, Hawes.) Called to a case the obstetric bag should contain an outfit which will enable the doctor to meet any ordinary emergency with perfect assurance; carry everything from tape to Tarnier and you will rarely have occasion to regret the extra trouble. I wish most heartily to condemn the practice of some men in responding to a call equipped with only scissors, thread, a catheter, a dab of cotton and a pack of cigarettes. The Lord help any woman falling into such hands, yet it is a common occurrence and we all know it, powerless to rectify such practice except by preaching and teaching. Labor now begins. Always give an enema whether bowel movement has occurred or not; an empty colon is a comfort to the woman and is particularly pleasant for the doctor. Have the nurse prepare the parts by a thorough washing with green soap and boiled water, taking in the thighs, lower abdomen, buttocks and vulva, clipping off or shaving all hair. Most of us clip, shaving being reserved to institutions and for operative interference. Shaving is better for every case, of course, but is objectionable to women in the higher walks of life. I notice of late that shaving has been tried extensively in France, but the women took a hand, and the end is not yet. Particular attention must be paid to the regions of the clitoris and anus, since it has been proven that in 40 per cent of cases bacteria lurk in the crevices of these parts in considerable numbers and are easily carried into the vagina by the examining finger.

Following the primary soap and water cleansing, use freely 1-2000 or 3000 bichlorid solution, then a little alcohol, if you wish, on the thighs and abdomen; cover with a sterile towel or

gauze until ready for the examination. In the presence of midwives or absence of a competent nurse, the writer makes it a rule to prepare the woman himself; it is no disgrace, and if results are to be had a man must be willing to work. Omit the antiquated antepartum douche unless there exists some vital and specific reason for giving it. Ordinarily it has no place in clean obstetrics, and is frequently harmful. Remember that the vagina is sterile by virtue of its secretion which kills off bacteria in 24 to 48 hours; strepto and staphylococci and pyocyanei introduced therein by Kronig were found absent in 48 hours. Williams found the skin bacillus present twice only in 92 cases. Leopold discovered infection in but two out of 919 cases. Contrast these findings with the 40 per cent infection of the anus and clitoris.

The patient is ready, now, Mr. Doctor, what will you do? Short clean finger nails, please, then spend five minutes scrubbing with green soap, brush and boiled water, another five in bichlorid solution or potassium permangate followed by oxalic acid if you prefer. So long as you are clean the method does not matter. A sterile or freshly laundered gown, and sterile gloves complete the toilet. Now you are ready and really prepared to make a vaginal examination without infecting a sterile vagina. Remember that this is sacred ground, and no amount of trouble is *too much* for the *energetic, result-getting* physician.

Now expose and spread the vulva wide open with fingers and thumb of one hand and pass in the examining finger. Have a definite plan in mind, note slope and size of the pubic arch, height of symphysis, degree of cervical dilatation, if membranes are ruptured or not. Examine the presenting part most carefully, making a diagnosis, if possible; supposing the head to present and membranes ruptured, and diagnose position by the fontanel; if this is not possible feel for the anterior ear and finding the direction in which it is pointing diagnosis is quite easy. Even in this we often fail; then if the head is descending satisfactorily, oftentimes it is useless to run further risks by making repeated examinations. We have all had cases where diagnosis even in the apparently simple conditions was impossible, until the birth of the head. Every case is a law unto itself, and we must be guided accordingly. Common sense is often our most valuable asset and helps many a man out of deep water. Determine now the relation of the head (if it be head) to the superior strait; sweep the fingers

around the pelvic cavity, forming a mental estimate of its capacity. Test the mobility of the coccyx; feel of the perineum, testing its thickness and muscular resistance. Long practice will enable one to have confidence in himself and all these points added usually gives a pretty fair estimate of the situation and whether to expect trouble or not.

In my own work I make it a rule to visit and examine every case thoroughly at the end of the eighth month, thus I am familiar with the pelvic conditions early enough to interfere should it become necessary, and it is the unexpected which usually happens. Supposing the second stage to be at hand, fully dilated cervix and unruptured membranes, promptly rupture them with some sterile instrument, scissors or artery clamp, and *not* with a toothpick or hairpin, unsterilized, as we have seen done. Rupture at this time hastens labor, cuts short the period of suffering and saves time for the doctor. Not long since a case came under my observation where the doctor was downstairs contentedly smoking, patient upstairs discontentedly suffering, unprepared, with one examination already made, membranes intact and cervix fully dilated. In twenty minutes after artificial rupture labor terminated. Oftentimes, however, the bag of water is the doctor's friend, holding the fort until his arrival.

If labor is proceeding favorably, a second examination may not be necessary and should be avoided if possible. Too frequent examinations are to be deprecated since we know the danger of infection. Some experts claim to depend entirely upon abdominal palpation for diagnosis; this is impossible to the average touch, but is useful as an aid to diagnosis and should not be overlooked by any one expecting to do good work. Have ready and sterilized by boiling scissors, vessels, Sims speculum, two artery clamps, needles and holder, mouse tooth forceps, uterine dressing forceps, tape. Arrange these for quick use, since in the average case there is only one pair of sterile hands. Gauze in yards or fives, gauze sponges, towels, bichlorid solution, etc. Touch nothing with the hands except sterile objects and make an effort to keep the woman on sterile towels or pads. We all appreciate the difficulty of handling a case in the house in an absolutely sterile manner, but our efforts must be directed toward its maintainance if satisfactory results are to be expected.

As the second stage nears the end, pains are often intolerable,

and now is the time to use an anesthetic. Sympathy for the patient and a regard for the perineum call for its administration. As the head begins to distend the perineum, or earlier if necessary, 10 to 30 drops on an open mask, of chloroform, given just as a pain begins will give wonderful relief; relief for which most women are extremely grateful. As the perineum bulges further and further, the pains become more intense and deeper anesthesia is required; then as the head passes over the perineum or is delivered intentionally between pains, a brief complete anesthesia is ideal. Chloroform does this for us, gives the woman relief; keeps the bucking kind quiet, thus permitting better asepsis; allows more relaxation of perineal structures; enables us to guard the outlet more carefully; permits delivery of the head between pains, and so far as my observation goes *does not* increase the tendency to hemorrhage.

As the head passes over the perineum the ingenuity of the physician is often taxed to the limit to preserve that structure, especially if the head is large, if the case is an old primipara, if the outlet is small, if expulsion is rapid, pubic arch narrow, and so on, and it is here that chloroform is of greatest value. Remember the comparative safety of chloroform in these women.

In trying to preserve perineal integrity any method which supports *the head* rather than the perineum will aid very considerably. The writer finds that direct pressure against the advancing head, carefully applied, during the pains helps materially—simply holding the head back. Supporting the head through the distended perineum, using the entire hand in doing so, answers very well, but in both methods remember to keep the occiput and later the nape of the neck pressed well up in the pubic arch. As the occiput passes out and extension occurs the head can often be shelled out of the vulva *between* pains, doing so deliberately and carefully thus saving a perineum which would otherwise tear. Some judgment is required in knowing just the proper moment to accomplish this, but it is easy and simple, once the habit is acquired. Oftentimes no matter how careful we are lacerations occur and the man does not live who has not failed at some time or other. In some cases the soft structures just beneath the pubic arch offer an obstruction to extension. The writer has noticed that as stretching of these structures occur the thin sharp edge grasps the occiput, as it were, holding the head down against the per-

ineum, and when this is slipped back to the neck extension will occur promptly and delivery is more quickly accomplished. In the opinion of experts this may not be good practice, but I have been doing this for a number of years, and find it a great help in most cases. There is a certain time when it should be done to obtain the best results, but it can be demonstrated only on the living subject.

Regarding the cervix, we know of no method by which lacerations can be prevented. The cervix is beyond our control.

Looping the cord around the neck is frequent, occurring about once in every four labors, hence it is good practice to slip the finger quickly backward as soon as the head is delivered anticipating this complication. If the loop is sufficiently long, pull it down and slip it over the head. If too short, clamp with two forceps and cut between, delivering without delay. If unable to do either on account of quick delivery simply allow the child to slip through the loop. This is simple and easy.

Delivery of the shoulders is now accomplished either naturally or by gentle traction if necessary, care being exercised to prevent laceration of an otherwise sound perineum. If the child is expelled by a contraction, simply receive it, elevating the head to avoid undue strain on the perineum, guiding the shoulders as they emerge, otherwise gentle traction or strong traction as may be indicated, delivering the anterior shoulder first. My experience has been that permitting the anterior shoulder to be born first gives me less perineal tears than delivery of the posterior.

Tie the cord; when, late or early? Budin has shown that 90 c. c. more blood escapes from the maternal end of the cord after early than late ligation, indicating this much loss to the child. Schucking demonstrated the same fact by weighing the child just after birth and again after the cord ceased to pulsate, proving thereby an increase in weight after late ligation. Hofmeier shows that the initial loss of weight in the first few days after birth is *less* after late than early ligation. Late ligation then should be the rule; place sterile gauze over the stump, silver nitrate, 1 per cent, or argyrol, 5 per cent, in each eye. If the uterus contracts well let it alone for 15 to 20 minutes, keeping a hand upon the fundus; if soft or flabby, gentle kneading aids firm contraction. Separation of the placenta should occur after this interval and is usually denoted by a rising up of the fundus higher in the pelvis, it lies

loose and can be easily expelled by the Crede method. This method however, should be credited to John Harvie, who advocated and employed it in the hospitals of Dublin as early as 1767. Never attempt to deliver the placenta by traction upon the cord, this is uncertain and unsatisfactory, and allowing it to be expelled entirely by uterine contractions is equally so. Knead the uterus gently in order to insure permanent contraction. Ergot can be given if any tendency to relaxation occurs, or if for any reason the physician thinks it indicated. I never use it unless there is some positive reason, preferring strychnia.

A warm vulvar douche or bath, sterile pad and a snug abdominal binder completes the toilet. Some physicians object to the binder, but I find that the comfort it gives fully justifies its use. The writer finds it good practice to teach the baby to nurse immediately after being dressed or as soon thereafter as conditions will permit; it sometimes saves trouble later.

Comparative Value of Abdominal and Vaginal Examination in Diagnosis of Fetal Presentation and Position.*

By W. D. PHILLIPS, M. D., New Orleans.

In selecting this subject to be brought before the State Medical Society, I have done so not with the idea of introducing something new or original, but entirely with the idea of calling attention to facts that exist, but, for some reason or another, seem to be overlooked. I refer to the more safe and satisfactory method of determining the position and presentation of the child in utero by abdominal examination, rather than by vaginal examination.

The diagnosis of fetal presentation and position constitutes an important part of obstetrical work to-day, and should always, if possible, be made before labor begins. The more common means of accomplishing this may be classed as follows:

First—Abdominal examinations, which includes, (a) abdominal palpation, and (b) auscultation.

Second—Vaginal examination, and

Third—Combined abdominal and vaginal examination.

In the majority of cases, until recently, the combined method of examination has been most practiced, for the diagnosis of pres-

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entation and position, before labor begins, a vaginal examination alone being almost entirely used to determine the probable time at which delivery would take place. Any physician who has done a large amount of obstetrical work will readily agree how difficult it is to determine, before labor begins, the presentation and position of the fetal by means of vaginal examination, as at that time we necessarily have to palpate the presenting part through the lower uterine segment. And even after labor begins the various fontanelles and sutures might be felt but are frequently mistaken one for the other. So, for practical purposes, we may say, vaginal examination only informs us as to the amount of dilatation of the cervix, and the degree at which the presenting part has descended into the pelvis. When we recall the high rate of mortality in puerperal infections and the frequency with which this condition is caused by the examiner's finger, we wonder why one should resort to such a possible danger as vaginal examination, when practically the same information as to the position and extent of engagement of fetus can be obtained by abdominal examination.

The percentage of puerperal infections have been much reduced, due to the more modern method of asepsis, but occasionally after the most careful preparation of the patient and the obstetrician's hand we encounter an infection. Careful investigation will often trace the infection to no other source than the examiner's finger, which, as we know, might not only carry infection from without into the uterus, but might also carry infective organisms from the vagina. I, therefore, in view of these facts, want to make a plea for the more general use of abdominal examination instead of the much used vaginal examination, believing it to be more safe and in most instances more satisfactory. I think, in a large percentage of normal cases, that vaginal examination can be entirely dispensed with.

Williams states that fifty per cent of his normal cases in private practice are delivered without a vaginal examination being made until the patient is ready to be discharged. The practical application of abdominal examination was not recognized until 1878, when Pinard of France published his work on this subject. Since then it has been used in this and other countries, but mainly as an adjunct to vaginal examinations, but as we become more familiar with its use, I feel sure abdominal examination will, in normal cases, almost entirely supplant the much used vaginal and

combined method of to-day. In my limited obstetrical practice, I have used it, and especially in the outdoor obstetrical service of Tulane have I found it very convenient. As the environments of the average patient treated in this service would make frequent vaginal examinations dangerous. One objection that can be urged against abdominal examination is the difficulty in palpating the fetal parts in one of two conditions.

First—In extremely fleshy patient, and,

Second—Case of polyhydramnios.

And even in these two conditions pressure on opposite side of abdomen with one hand while palpating with the other, will often enable one to feel distinctly the fetal parts. For convenience of description, abdominal examination may be divided in—first, abdominal palpation, and second, auscultation, both of which should be practiced, if possible, before and after labor begins. The examination should, if possible, be made on a table. The examiner, facing the patient's head, first outlines the long diameter of the child by placing the palms of both hands on patient's abdomen, and after locating the fundus, the fetal end occupying it is determined, the breech giving the sensation of a large irregular nodular body, whereas the head gives the sensation of a hard round body, which is freely movable and ballotable; having determined whether the case is either a breech or head presentation, we next determine if it is a right or left position; by careful palpation and applying the palms of both hands to the side of patient's abdomen, we feel a hard resisting body on one side, which we recognize as the back of fetus. On the opposite side an irregular body or nodulations will be felt, which we recognize as the small parts. In thin patients, the arms and legs can frequently be felt, especially during the active movements of fetus. After determining the location of the back, we next note whether it is directed anteriorly or posteriorly, so as to determine anterior and posterior position. Knowing the location of the breech, head and back of fetus, we next want to determine whether or not the presenting part is engaged, and also if the head is extended or flexed, thus determining whether or not we are dealing with a face or vertex presentation. By grasping the lower portion of abdomen just above the pubis with the thumb and fingers, of one hand, a hard body will be felt. If the head be presenting you will feel a hard movable body easily ballottable, whereas, if breech be presenting, you will feel a soft

irregular body. If presenting part is not movable, we know that engagement has taken place. If engagement has not taken place in head presentation, by careful palpation, with both hands, we determine that the greatest cephalic prominence is on the same side as the small part, we know that the head is flexed and we have a vertex presentation, whereas, if the greatest cephalic prominence be felt on the same side, as the back, the head is extended and we are dealing with a face presentation. If labor has begun and the presenting part be engaged, the examiner faces the patient's feet and with the tips of fingers of both hands, placed just above the pubis, depression is made in the direction of the axis of the superior strait, the extent of engagement can be determined by this. And also if the head be presenting the diagnosis between face and vertex presentation, can be made by determining on which side the greatest cephalic prominence is located. Having determined the presentation and position of fetus, also, the approximate extent of engagement we may obtain further information by auscultation. The intensity and location of the fetal heart sound are unreliable, when used alone to determine the position of fetus, but often add further information to that obtained by abdominal palpation. In head presentation the fetal heart sounds are usually heard best midway between the umbilicus and anterior superior spine of ileum, whereas, in breech presentation, are best heard on a level with umbilicus.

The next point to be considered is, how shall we determine the probable time at which delivery will take place?

The extent of engagement can be determined by deep abdominal palpation, and the following facts will also assist in determining this.

First—Whether or not the woman is a primipara or multipara.

Second—The character, intensity and duration of the pains.

Third—The bulging of perineum as is seen during a pain. Also the pressure symptoms on the bladder and rectum might be taken as an indication of delivery.

In conclusion, I wish to further urge the more general use of abdominal examination for the diagnosis of fetal position and presentation, believing it to be more safe and in the majority of cases for practical purposes more satisfactory.

Interstitial Pregnancy.*

By WM. KOHLMANN, M. D., New Orleans.

If the impregnated ovum develops in that part of the Fallopian tube which traverses the uterine wall it comes to a formation of an ectopic gestation, which is known as interstitial tubal pregnancy. Such a development is very seldom met with under the different varieties of tubal pregnancy.

Martin observed only one case in seventy-seven cases of tubal pregnancy operated by him up to 1895. Werth, up to 1903, had not a seen a single case in one hundred and twenty cases of tubal pregnancies which had been under his care.

According to Lawson Tait there comes about one case of interstitial tubal pregnancy in one hundred cases of the other forms.

Rosenthal compiled statistics of 1324 cases of ectopic gestation, and of this number there were only forty cases of the interstitial variety. In more recent years a somewhat larger number has been reported, but the number is yet small in comparison with the frequent occurrence of the extra-uterine development of the ovum. In looking over the literature from the years 1903 until 1911 I have been able to trace the reports of about fifty cases, which is indeed a very small percentage considering the large amount of reports dealing with other varieties and complications of extra-uterine gestation.

Considering that the uterine part of the tube averages one centimeter in length, we must accept the possibility that the development of the ovum may take place in different directions. Following this possible variability of development, interstitial pregnancy has been sub-divided into different groups.

Hennig, in 1889, divided them into three groups:

a. Graviditas interstitialis.
b. Graviditas intramuralis.
c. Graviditas tubo-uterine.

In later years, 1898, Raschke and Beckman differentiated into two groups:

a. Graviditas tubo-uterine.
b. Graviditas interstitialis propria.

Beckman considers as belonging to the first group all such cases in which the ovum is adherent to the tubal wall near the uterine

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cavity, developing gradually into the uterine cavity, and all cases, though developing in the tube, show a small communication with the uterine cavity. Belonging to the second group, the graviditas interstitialis propria, Beckman considers all such cases in which there is a muscular wall of more or less thickness found between the ovum and the uterine cavity. More recently, 1903, Werth recognizes only the graviditas interstitialis propria. He considers the utero-tubal as an isthmic variety, developing into the wall of the uterus. The tubo-uterine he considers theoretically possible, but it will hardly occur, as the ovum adherent near the uterine opening easily develops into the uterine cavity without developing into the surrounding muscular tissue.

Lequeux, 1911, proposes the following division.

1. Interstitial pregnancy in the lumen of the tube developing
    a. In tubal pregnancy.
    b. In intra-uterine pregnancy.
2. Interstitial pregnancy developing
    a. Towards the fundus of the uterus.
    b. Towards the lateral wall of the uterus.

Considering the present status of our knowledge of this variety it seems preferable to differentiate only the form of intramuralis, as every graviditas interstitialis develops more or less into the muscular tissue of the uterus.

Anamnesis and physical examination will hardly allow the possibility of making a clinical diagnosis of interstitial gestation, as pregnancy in a rudimentary horn, or pregnancy situated high in the uterus near the tubal opening could, in the early months, make similar clinical symptoms. The ovoid tumor, characteristic for interstitial pregnancy, is so closely connected with the horn of the uterus that it would be most difficult to differentiate. It is easier to make a differential diagnosis between interstitial pregnancy and tubal, than between interstitial and normal uterine pregnancy.

No doubt quite frequently mistakes in diagnosis have given indication for operation. McLean reports the following case.

Married. Age 26.

Examination.—Cervix soft and high up. Body of uterus in median line, and very tender. Whole right side occupied with tumor containing fluid, was immovable and could be mapped out running well out of the true pelvis and terminating in rather an ovoid shape in region of caput-coli. Running from this point to the median line and out was irregular and merged into what seemed to be the enlarged uterine body.

Operation.—Portion of tumor which had been considered as uterine body was found to be a thin sac containing a living fetus of about four

months. Walls contracted, or grew tense, every few minutes. Left tube was in normal condition. Adhesions were freed. Uterus was lifted up and assumed normal shape. Sac containing fetus was in enlarged horn of uterus. Patient is now six months pregnant.

In three instances especially I have been in serious doubt in regard to diagnosis—if the pregnancy was an extra-uterine or a normal one.

Mrs. T. First examined July 10, 1910. When six weeks pregnant, while in the country, lost a great deal of blood and clots; was supposed to have an abortion. Four weeks later she consulted me. Examination showed mass in lower abdomen, enlarged pregnant uterus, three months, ovoid shape, right side presenting fluctuation, left rather hard. This condition persisted up to seven months; afterwards, enlargement of uterus was more uniform. After delivery, the harder part, which seemed in the early months to be the body of the uterus, was found to be a fibroid, which gradually diminished again in size, and hardly could be felt three months after delivery.

Mrs. M. February 1, 1909. Patient has not menstruated for three months, when there began an irregular bloody discharge. Intermittent pain in right side.

Examination showed mass the size of a three-months'-pregnant uterus. Right side soft, fluctuating. Left side hard, simulating body of uterus. Suspicion of extra-uterine, though chronic appendicitis was considered. Laparotomy. The right side of the uterus was found enlarged; walls rather thin, containing a living fetus. Left side felt harder in consistency. Appendix, found in state of chronic inflammation, was removed. The patient made a quick recovery, with absolute relief from pain. Normal confinement at full term.

The following case was seen with Dr. L. C. Chamberlain.

Mrs. R. First seen in June, 1909. At that time was two and a half months pregnant. There was a fluctuating tumor apparently connecting with the uterus. Patient was under our observation for about six weeks, on account of a suspicion of extra-uterine pregnancy. After that time mass was distinctly connected with the uterus, and a diagnosis of intra-uterine pregnancy was made sure. Patient had a normal confinement.

It is just this difficulty in diagnosis which prompts me to report the following case.

Mrs. S., age 39, admitted to Touro, February 14, 1912; discharged March 9, 1912. Four children, two living; two died in infancy. Last labor in 1899. No abortions. Eight years ago pelvic pains on both sides, lasting, off and on, for a period of about two years. Salpingitis one year ago. Menorrhagia for two menstrual periods; last time, bleeding lasted one month. Curettage and perineorrhaphy. Menses regular after operation. Last regular menstration, November 19, 1911. From December 19 until January 19, irregular, bloody uterine discharge. After January 19 patient was in perfect health.

Present illness began February, 13. Patient was awakened out of sound sleep at 11 p. m. by intense pain in right side of abdomen. When first seen that night patient showed symptoms of shock, was pale, depressed; pulse 120. There was slight distention of abdomen, especially on right side; pain on palpation; right leg drawn up. Removal to hospital. Diagnosis, probably extra-uterine pregnancy.

At 1 a. m. general condition somewhat improved. Bimanual examination revealed cervix slightly enlarged and soft. Uterus enlarged, size of a four-months' pregnancy, though irregular in shape, right side reaching

Illustrating Dr. Kohlmann's Article.

higher than the left. Abdomen somewhat distended and extremely sensitive to touch. Leucocyte count, 15,000; polys., 90 per cent.

As patient was doing better, expectant treatment was adopted. During the night nausea and vomiting began, and there was an increase of pain and distention.

At 7:30 a. m., examination under ether. Similar condition was found, though uterus seemed less oblong. I decided to continue the treatment. About two hours later patient was reported to be growing weaker and pulse getting faster. When I saw patient one-half hour later she showed typical symptoms of internal hemorrhage; face pale, cold; pulse imperceptible.

Immediate operation. Intravenous infusion. Median incision opened the abdomen, which was found to be full of blood and blood clots. Hand was introduced in pelvis, and uterus the size of two and one-half months' pregnancy was brought up. The right side of the uterus was larger than the left. The insertion of the right tube probably one and one-half inches higher than the left.

The lateral surface of the uterus showed a big tear. There was a lacerated wound about two inches in length on which placenta, with cord, was attached. Fetus, six inches long, was found lying in small pelvis.

On account of the large, lacerated wound in the uterine wall, and extreme condition of the patient, and in consideration of her age, I decided on a supra-vaginal amputation as the safest and quickest procedure. Abdomen was closed, with drainage tube leading to posterior cul-de-sac. Patient made a good recovery.

The removed specimen was the size of a uterus that was two and a half months pregnant. The right side was a good deal larger than the left. The tube was free down to the uterus. The lateral, and partly posterior, surface of the uterus shows a cavity the size of an egg. In the depth of the cavity uterine muscular tissue is easily seen. The round ligament is found lateral to this cavity. No communication with the uterine cavity could be established.

The anatomical diagnosis of interstitial pregnancy can be verified in this case by the presence of the cardinal symptoms.

First. Marked enlargement of the uterine body. In interstitial pregnancy the uterus keeps pace with the growing ovum in a more marked degree than in any other ectopic gestation. The uterus, as a whole, shows enlargement and thickening of its walls, being especially noticeable around the seat of the ovum, which produces the irregular shape of the uterus.

Second. The round ligament was found on the lateral side of the cavity.

Third. The insertion of the right tube higher than the left, a symptom which Rouge has observed as an especially important mark for differential diagnosis.

The treatment of interstitial tubal pregnancy calls for some special discussion. In case of rupture the general line of treatment of extra-uterine pregnancy is to be followed and it is not my intention to go into a detailed description of same, though internal bleeding in ruptured interstitial pregnancy may be much more severe. Several cases have been reported where hemorrhage was so severe that death occurred quickly, without surgical interference being possible. Special consideration is required in regard to the treatment of the seat of the ovum, which usually means quite an extensive lacerated wound of considerable depth on the lateral and posterior surface of the uterus. In many cases merely

suturing of the bleeding surfaces has been followed by success.

Excision of the affected portion with following suture would, without doubt, be the preferable treatment, as it would insure primary union. This excision though takes some longer time and the condition of the patient has to be considered to see if such treatment can be carried safely through.

In interstitial pregnancy, after three months (as shown in the cases reported) supravaginal amputation has to be considered as the quickest and most bloodless procedure, and has been done in most of the reported cases of more than three months' pregnancy. In one case—Muret—panhysterectomy was done, though hardly advisable as more time is consumed and more blood lost. I may say that the best treatment in the first two months is excision of the comparatively small lacerated wound with following suture. After the third month partial supravaginal amputation—wedge-shape incision—which saves at least the adnexa of the unaffected side, if they are found in healthy condition.

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Discussion on the Papers of Drs. King, Phillips and Kohlmann.

Dr. Robert W. Faulk, Monroe: On the subject of advanced obstetric practice, which is dealt with in the papers that have been read this morning, I would like to make a few remarks, especially with reference to anesthesia, which is one of the most important points for discussion, although it was not touched on except one of the speakers made reference to chloroform.

I appreciate the remarks of Dr. Lewis on the management of placenta previa centralis. I have had some recent experience with that character of work, and in one case especially, where I reproached myself for not having done Cesarean section. I proceeded to deliver by the vaginal route, and although we lost the infant, the mother's life was saved. I have thought, since hearing Dr. Lewis' remarks, I should have done a Cesarean operation, but I feel sure now I did what was right at the time.

One of the speakers referred to chloroform, saying it has been the anesthetic that can be used with safety in obstetric cases. The parturient woman is almost immune to danger from chloroform. In the past few years in my obstetric work I have used in special cases the Abbott alkaloidal tablet, the H. M. C. tablet, with very happy results. I have used the smaller tablet or No. 2, giving it in the beginning of labor, and where the patient was suffering severely and during the expulsive stages, I would use a second dose. But I especially want to report on the use of the H. M. C. tablet in the management of a case of triplets, which I was called to see on one of the plantations near Monroe. The patient was a negro woman who was in labor. She had been in labor two days. She was completely exhausted at the time of my arrival. After cleansing my hands surgically, and having the woman bathed, especially the vaginal parts, with one to two thousand bichloride of mercury solution, I proceeded to make an examination and as well as I could determine I made a diagnosis of twins. I then gave her the full H. M. C. tablet, and had a negro woman to clean up the field and prepare the woman for an operation. In an hour's time we were about ready for the work; the patient was sleeping. She was free from pain, was placed across the bed, a handkerchief was placed in a tumbler, and given to a negro man to give chloroform. Just a few whiffs of chloroform, the patient was under the H. M. C. tablet and chloroform, to be delivered surgically. I delivered the first twin, which was a breech presentation, and after a reasonable length of time I delivered the second infant by breech. Both lived. A little time was taken in caring for the infants. They were turned over to a nurse, such as we had, and then I proceeded to remove the placenta, which was delivered, but the membranes failed to come away. The cord was in a loop, and still I could not get all the membranes away. Some of the membranes came away with the delivery of the placenta. I cleansed my hands, introduced my hand into the uterus, and felt the head of a third infant. Some five or ten minutes had elapsed between the delivery of this infant and the second one, and the infant in utero had certainly been deprived of circulation. I delivered it quickly with a pair of Elliott forceps, and resuscitated the third infant. There were no untoward results so far as the patient was concerned. The third infant remained in utero from five to ten minutes without any circulation, and some air must have gotten in during the delivery of the second infant and the placenta.

Dr. A. C. King, New Orleans (closing the discussion on his part): In regard to anesthesia, I covered that subject pretty well in a paper I read last year, but I want to say this, that we have not yet adopted the use of the H. M. C. tablet here to any great extent. We are accustomed to use chloroform and in certain cases ether, but I am glad Dr. Faulk related his experience. It is a method that was used in Europe many years ago with some good results, as well as with some bad results. Dr. Miller and two or three others here have used it, but not with the success the Germans claim for it.

Dr. Phillips, New Orleans (in closing): My experience has been that I have been able to determine much more by abdominal palpation than by the vaginal method. I have read in text books that one can feel and distinguish the various fontanelles and sutures, but while I have done a good deal of obstetrical work, I must admit that I have been unable to do this with any degree of accuracy, especially before the first stage of labor, and in some cases even after this; whereas, with abdominal palpation I have been able to determine at least the presentation, and in quite a few instances the position of the child in utero. It is for this reason that I urge the more general use of abdominal examination in obstetrical work, believing it to be more safe and in the majority of instances more satisfactory.

The Surgical Treatment of Puerperal Infection.*

By C. JEFF MILLER, M. D., New Orleans, La.

It is exceedingly difficult to formulate the indications for surgical interference in puerperal septic infection because of the almost infinite gradations of the affection, the several possible varieties of offending bacteria, and furthermore because we have no reliable clinical, or bacteriological guides as to the prognosis in a given case. The only lesion may be a simple perineal tear through which septic infection may travel to the parametrium resulting in infiltration or abscess, or by way of the lymphatics to the peritoneum. It may be localized in the uterus, tubes, or ovaries, or rapidly become systemic by extension through the numerous venous channels in the uterine walls. If the latter route is chosen the patient may

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succumb from acute septicemia before local lesions may become recognizable, or it may extend slowly and assume the form of chronic pyemia. Any one of these types may suddenly assume one or more phases of another and the condition become in succession a vaginitis, endometritis, metritis, thrombophlebitis, salpingitis, oophoritis, peritonitis, pyemia or simple phlegmasia.

Ordinarily the endometrium is the structure involved and the lesion is localized in the uterus, the condition becoming either a putrid or septic endometritis according to whether the invading bacteria are putrefactive, or pyogenic in character.

This condensed enumeration of the protean forms of septic infection very promptly suggests the difficulty of diagnosis and the responsibilities of the medical attendant. Every conscientious surgeon who urges operative interference in these cases will wonder whether a given case would not have recovered without a serious operation; in another instance he will regret that his timidity or mistaken prognosis caused him to desist altogether, or delay too long the only alternative that offered a possible chance of recovery.

In later years the surgeon has endeavored to establish general acceptable principles of treatment, always urging conservatism, emphasizing the fact that all local forms of infection are usually self-limited and require little intrauterine treatment, and that the curette is responsible for many deaths by converting a simple into a virulent type of infection.

On the other hand, he has insisted more positively upon a clearer differentiation of the types of infection, the prompt drainage of localized abscesses, hysterectomy in occasional instances, the ligation of venous trunks in chronic pyemia, and early interference in peritonitis.

These last named surgical procedures furnish numerous points for argument at present, but the experienced obstetrician has long since adopted positive ideas regarding the limitations of repeated irrigation, curettage, and all other intrauterine manipulations.

I take it for granted that it is not necessary to allude to prophylaxis as the most successful way of dealing with this affection. If every practitioner adopts Bumm's generalization, viz., that puerperal fever is wound fever: wound fever is wound infection, and adopt the same measures in puerperal technic that he applies in the management of ordinary surgical procedures, the morbidity in lying-in cases would be markedly reduced.

The medical attendant must be willing to pay strict attention to the local types of infection and learn to be more conservative when the infection has passed beyond a simple affair; in other words, he must not interfere with nature's efforts to protect the patient against invading bacteria.

In order to do this the assistance of the pathologist is a well-recognized necessity. Unfortunately, the bacteriological findings are not altogether satisfactory, but from positive findings we at least obtain information of vast importance from a prognostic standpoint.

In the presence of streptococcic invasion the use of the curette, frequent intrauterine irrigation or colpotomy, would be not only useless, but almost criminal. Such practice belongs to the age when it was thought possible to eradicate the pneumococcus and typhoid germ by antiseptic treatment. Why should it still prevail in streptococcic invasions of the genital tract?

Probably the majority of the cases of puerperal sepsis are encountered after abortion and it is quite possible that more of these are treated badly than infection at full term.

The knowledge that the uterus contains decidua is sufficient argument for the attendant to urge curettage when it is more probable that no such interference is indicated.

The treatment of such cases can be fairly summed up as follows:

First, exclude the causes of the rise of temperature, then if the uterus proves to be the source of trouble take smears from the cervix for a bacteriological examination if possible. At the same time dilate the cervix and irrigate the uterine cavity copiously with a saline solution. Explore the cavity with the finger and remove any remaining debris. There is no indicaton for packng the uterine cavity, nor repeated irrigations with bichloride or other antiseptic solutions.

I have seen in consultation many cases which had been already curetted one or more times by the attending physician, and the question has been raised as to the indications for a more thorough curettage under anesthesia. I invariably answer that I have never seen a case requiring more than one thorough cleansing of the uterus that did not present lesions beyond the reach of local cleansing or the curette. A shrewd general practitioner once told me that he prepared the family for the worst as soon as he found that

one careful cleansing of the uterine cavity had not relieved his patient. His personal observations only confirm the general opinion held at present by obstetricians conducting large clinics devoted to such work.

If the uterine contents are involved in a saprophytic infection, the indications are to simply empty the uterus. If hemolytic streptococci are present, operative measures are questionable. In such cases the only indication for local treatment is hemorrhage.

A sapremia, says Stowe, associated with good drainage and uterine retraction, is not to be feared, and these conditions can be secured by Fowler's position.

If curettage has a single indication in abortion it has less in full term deliveries. It is not necessary to recall the dangers of the curette in these cases. Whatever cannot be removed by the finger can be left alone, for the dangers of perforation, breaking down protective walls or dislodging blood clots from gaping sinuses, are overwhelmingly greater than any advantage gained by scraping away portions of retained membranes or a placental cotyledon. To invade the uterus, with instruments or the hand to remove a simple piece of amniotic sac, is no longer considered absolutely necessary. As a rule, it is discharged within a few hours, if uterine contraction is satisfactory and if the attendant is sure of his asepsis he can safely wait, unless the entire sac remains or hemorrhage occurs.

Experience has shown the wisdom of delaying operative measures in acute gonorrheal invasion of the genital tract in non-puerperal cases. The same rule holds good in gonococcal endometritis arising during the puerperium. Intrauterine irrigation is useless and usually tends to disseminate a condition which practically always becomes localized in time, and which can be treated with 20 per cent less mortality after the infection has become quiescent.

Daily irrigation of the uterine cavity no longer receives general sanction. Too often the attendant is prompted to irrigate in order to satisfy the family that something is being done, and just as often there may be a daily chill or rise of temperature from the treatment, to say nothing of the discomfort caused to the patient by turning her in bed, or removing her to a table.

Some years ago, Pryor, Robb and others advocated incising the cul-de-sac of Douglas and packing the pelvic cavity with gauze.

The procedure never received the general sanction that the claims of the originators would seem to justify; in fact, it was condemned by many experienced observers.

There is no question but that it is valuable in selected cases. When the cul-de-sac is distended with fluid, localized pus collections, fluctuating tubes, or extensive exudates easily accessible to the vagina, it is a simple procedure and attended with little danger. If suppurating tubes or ovaries are movable the abdominal route is probably the safest. In cases of parametritis with extensive exudate there is a question as to the benefits of incision. Undoubtedly the majority of them will be absorbed if left alone, but fortunately if incisions are made and no pus found, the results are frequently as good as if pus was evacuated. Colpotomy may be useful in localizing a spreading peritonitis. In a seemingly hopeless case of diffuse purulent peritonitis following delivery at term, I drained a quart of fluid from the general cavity and the patient promptly recovered. If pus collections are situated above the vaginal vault, it is best as a rule to defer operation until the acute process subsides.

Until recently general peritonitis was considered hopeless and practically no one advised operation. It has been shown, however, that prompt interference will save some cases and laparatomy and drainage have the approval of such experienced operators as Bumm, Leopold, Wormser and many others.

Leopold insists that when the diagnosis of acute peritonitis is made the abdomen is not to be opened later than three days after the beginning of the disease. This is no exceptional rule; it applies to peritonitis originating elsewhere in the abdomen, and it is not too much to believe that the results in puerperal peritonitis may be improved if the cases were operated upon at the proper time.

Bumm confirms the diagnosis by inserting the hypodermic needle through the cul-de-sac or abdominal wall, then makes a small median incision, explores the pelvis, then makes counter incision in the flanks through which tubes are drawn covered with gauze. Another opening is made through the vaginal vault. Great stress is laid upon the importance of handling the organs as little as possible, and no attempt is made to irrigate the cavity, remove exudates or diseased appendages.

Such an operation can be performed in a few minutes and is attended with very little shock. While it must be admitted that the

results have been disappointing, the blame should not be entirely attributed to the operation. The actual results cannot be estimated until it is admitted that patients suffering from puerperal peritonitis are entitled to surgical intervention as promptly as those developing peritonitis from a gangrenous appendix. It may then be found that the high mortality has been due in a small measure to delay and not altogether to the inefficiency of surgery.

There are still many details to perfect before a proper study can be made of the operative results in puerperal peritonitis. The most important is the ability to differentiate the cases having a tendency to localize from those classed as foudroyant septic peritonitis that will only survive two or three days despite any form of treatment. Bumm thinks that even some of these may be saved if laparotomy is done during the first 24 or 48 hours.

Unfortunately a diagnosis is seldom possible in so short a time and the condition is hopeless before surgery is considered.

The same difficulty has arisen in regard to hysterectomy. Ten years ago the subject was frequently discussed. The chief points of contention were that if one operates sufficiently early to prevent the extension of the process, many uteri would be removed unnecessarily, and if operation was delayed too long it was useless.

All these arguments, as you will observe, again hinged upon the matter of diagnosis.

The final conclusion reached was that hysterectomy had a field in those cases in which the process had not extended materially beyond the uterus, but has given rise to abscess formation in the uterine wall. It is also recommended in putrid endometritis which fails to respond to the other methods of treatment.

The best study yet published of this subject was presented by Wormser, who reviewed the results of hysterectomy in 291 cases; 69.4 of the cases operated upon for acute sepis died; hysterectomy after pelvic veins were involved, 68.1; in general peritonitis, 67.3; for gangrenous myomata, 23.3 per cent.

The variable lesions, the rapid invasion, the difficulty of diagnosis and uncertain resisting powers of a given case, make hysterectomy a disappointing operation, and there seems to be very little prospect of reducing the mortality below the above stated percentages.

The surgical treatment of pyemia is at present receiving con-

siderable attention. It is not possible to arrive at convincing conclusions as to its efficacy as yet, since the material before us is insufficient. Investigation has established several valuable points, however, which may be summed up in a few words, viz.:

1st. Septic thrombophlebitis occurs oftener than was formerly suspected.

2nd. The mortality can be fairly estimated to be between 80 and 100 per cent., when treated expectantly.

3rd. In several cases the process has been arrested by ligation of the involved veins.

4th. In chronic cases the diagnosis can be made with a fair degree of certainty.

5th. Pyemic cases stand operative measures surprisingly well.

6th. The cases of *pure* septic thrombophlebitis treated surgically have shown a satisfactory reduction in mortality.

7th. In acute pyemia the mortality has not been influenced by operation, but in chronic cases the results are now hopeful.

All of these points are of immense practical value, and there is no doubt but that ligation of septic thrombosed veins will become an accepted method of treating pyemia in selected cases. All of the authorities who urge the ligation of thrombosed veins lay great stress upon operating at the earliest possible moment after a diagnosis is made, and add as a further argument that if only a small reduction of the mortality in a disease presenting a 90 per cent mortality is accomplished by operation, the procedure is justifiable.

It will require a large number of cases and careful discrimination to establish the true value of surgery in puerperal pyemia. The statistics are at present being made, the time for collecting them has not yet arrived.

Treatment by intravenous infusions of silver salts has been disappointing. The latest investigations show that they act simply by increasing phagocytosis. I have employed collargol infusion in a sufficient number of cases to convince me that it has little value and may be often followed by severe chills and other aggravating features. It has in some instances seemed to promote sleep and reduce the temperature temporarily.

Occasional favorable reports of the value of bichloride of mercury given by infusion appear in the literature. Stowe used it in all undoubted cases of septicemia and lost only five patients, and adds that the treatment is harmless and is worthy of trial.

The results of serum treatment are equally disappointing. The various strains of streptococci and their varying virulence makes the preparation of an efficient serum exceedingly difficult. Even though the preparation of the serum is accomplished, the early occurrence of mixed infection reduces immediately its potency.

Aside from the special surgical indications, the general treatment is of great importance.

All cases of sepsis develop early a depression of the vital centers and rapid katabolic changes. The patient should be sustained by alcohol, milk, beef juices, etc., and large quantities of water should be given, preferably by proctolysis.

Stimulants are necessary, especially strychnin, but it should be remembered that frequent doses of strychnin, digitalis, etc., continued for days, may be followed by serious results.

Rest is absolutely essential. Septic patients do not sleep well, especially when over stimulated by cardiac tonics. Sleep must be induced even if repeated doses of morphine are necessary. In chronic cases the beneficial effects of sunshine and outdoor life must not be overlooked. As soon as possible I have these cases placed on a cot or wheel-chair on the gallery, governing the time by the condition of the patient.

While nothing really new has been recently suggested in the way of treatment of puerperal infection, much of value has resulted from the numerous contributions and discussions of the past three years.

Among the many practical points that have been evolved are the necessity of differentiating the types of infection by bacteriological examination, a clearer knowledge of the lesions as revealed by the physical signs, a more conservative attitude towards simple sapremia, the danger of surgical interference in the presence of virulent streptococcemia, and the necessity of interfering earlier when radical surgery is indicated.

Conservatism in Gynecological Surgery*

By MILTON A. SHLENKER, M. D., New Orleans.

The warning has oft been sounded against the ruthless destruction of the female reproductive organs, but unfortunately this warning has seemingly gone unheeded and as a result many a woman has suffered the consequences of a premature menopause and all that this implies. Think of the numerous lives that have been blighted by having at one time been rendered sterile by the removal of their organs, and deprived of the privilege and opportunity of enjoying the happiness of maternity. My views on this subject are entirely in accord with McRae (*Journal A. M. A.*, 12-2-10) who says in reference to conservative surgery that "it is a type of surgery that aims at conserving tissue and functuating organs, in whole or in part, without undue hazard to the life of the individual."

I believe that the time is now opportune to remind you that we must be less radical in our operative procedures, and more careful in our conclusions.

It is to those who with a fair operative ability but lacking in a good pathological and diagnostic foundation that we must impress the necessity of conservatism in the treatment of diseases of the organs of reproduction. And to ourselves, we should consider well the significance it bears before we enter into any procedure that will deprive a woman of her rights to motherhood.

With our advanced knowledge of pathology and diagnosis we should strive earnestly in each and every case to make a complete analysis of all objective and subjective symptoms, taking into consideration all the neurasthenic symptoms produced by other conditions which we are too ready to attribute to some trivial disturbance of the pelvic organs. Bloodgood says, in reference to a more accurate diagnosis in the surgical treatment of diseases, "We cannot hope for any better results after surgical intervention unless the method of diagnosis already employed by the minority are familiar to, and made use of, by the entire profession." I believe that all of us with operative experience are fully in accord with the sentiments expressed above.

Of course when a tumor is once diagnosed, or the presence of malignance is suspected no treatment can be too radical, but we

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must look also to the trained pathologist for his opinion, and this, combined with our knowledge of the clinical signs and symptoms will aid us materially in knowing just how radically we should proceed. We must further study the etiology of each of our cases and familiarize ourselves with the pathological picture produced, and always consider the possibility of employing some of the numerous palliative measures where no tumors or malignancy is suspected.

How frequently is the poor unsuspecting woman subjected to a curettage simply because she has the "whites" and without having been given the benefit of having her secretion examined miscroscopically, or the etiology of her case studied. Consider how often we see in our practice the young girl and the unmarried woman having a leucorrhea which is entirely independent of pelvic disturbance, but due to some constitutional cause.

We will find not a few of these cases, especially those of specific and non-puerperal origin, that will yield readily to the usual local treatment, which consists principally of rest in bed and an occasional purge, copious hot douches, with the interdiction of stimulants and sexual intercourse.

In chronic endometritis we find the disease affects both the body and the cervix of the uterus and is usually the result of subinvolution, laceration of the cervix, retrodisplacements, constipation, etc. In these cases we must first use those methods to relieve the cause before treating the disease itself. Snyly well states in an article in reference to the local treatment of endometritis, "We should always remember that the treatment should not be more dangerous than the disease from which the patient suffers." I am of the opinion that this statement should hold good in the treatment of all conditions.

Another thing that I have been impressed with is the numerous operations that are being performed for the correction of the non-complicated retrodisplaced uteri, and the many operative procedures devised, and all of the varied symptoms attributed thereto. In a paper written some time ago I quoted statistics proving that the non-complicated retrodisplaced uterus did not produce the symptoms referable to, and that the operations performed for these symptoms did not afford relief; showing plainly that this condition alone does not warrant any surgical interference whatsoever. As a rule, where we suspect that the symptoms are attributa-

ble to this condition, it is easy enough to bring the uterus back to its normal position and hold it there by one of the many pessaries now on the market. Or when this condition is due to a relaxation of its supports, such as the perineum or its ligaments, we will find most excellent results from local treatment, using tampons with such drugs as thyol, or boro-glycerid, or glycerin combined with hot douches. The use of the vibrator and massage has exceedingly beneficial action in stimulating contraction of the uterine supports. Of course when the retrodisplacement is dependent on a laceration we must restore same by operative measures. In some of these cases, where some difficulty is experienced in replacing the organ the introduction of the colpeurynter filled with either water or mercury, having the hips well elevated, will, with little discomfort to the patient, gradually raise the uterus to its normal position.

Much has been done and the investigation still proceeds along the lines of conservatism in the treatment of fibroids of the uterus. As far as drugs are concerned, up to the present time none have come to my knowledge that have any effect whatsoever upon the growth. Galvanic electricity with its champions, led by Apostoli, which at one time was so highly regarded, has not stood the test of time, and has been put aside. I must confess that I was very much impressed with the result of the cases that I saw treated in Prof. Krœnig's clinic, Frieburg, Germany, last summer, by the application of the Rœntgen ray. The cases in which the X-Ray can be used have a very limited range of applicability, and the technique and dosage must be carefully studied. Bordier *(Presse Medicale,* Nov. 2, 1910) gives the following classification of the cases suitable for this form of treatment:

1. Fibromata more or less voluminous, the development of which is relatively recent, and fibromata reaching the umbilicus, but not having existed more than five to seven years.

2. Small tumors accompanied by severe hemorrhage whatever may be the age of the patient.

He found in the patients of the first class the diminution of the growth was continuous and progressive, covering a period from four to five months, and in those of the second class the progress was much more rapid.

In those cases where the ray is used we have a premature menopause, due to the action of the rays upon the ovaries.

In young women who are desirous of having children, and having a single tumor, myomectomy should always be practiced.

I must confess that the conservative treatment of fibroids is exceedingly limited, and only too often the advice is given that the removal should be delayed with the hope that it will atrophy at menopause or be discharged as a polyp at some later date. I mention this fact for I know that this idea still prevails among many practitioners of the day, and to warn you of the danger that can and does occur in these growths, together with other constitutional disturbances (myocardial).

Penrose states concisely the status of affairs when such advice is given. "Many women follow this advice, have suffered through years of active life and have found relief and cure when the menopause was reached. Others have started upon this dreary course, and have died from some of the accidents incident to these tumors; still others have passed through these years of suffering and have found the looked-for goal vanished, the menopause indefinitely postponed, or the tumor continuing to grow after this period of life has been reached."

How often do we see both ovaries sacrificed just because they contain a few follicular cysts, which, as we well know, are innocent and not responsible for any symptoms; or the ovary is said to be cirrhotic and must be removed, but recent studies of this condiiton prove that these ideas are fallacious.

It has been my practice at all times to conserve some part of the ovarian tissue whenever same can be done without jeopardizing the result of the operation, or the future existence of the patient, knowing the importance of this organ and the influence its internal secretion plays in the existence of the woman.

Dickenson, in a recent article in *Surgery, Gyn. & Obs.*, remarks, "Among the cases wherein the ovaries, one or both, or a portion of one or both were concerved, the disturbances of menopause in four out of every five cases were avoided." This experience, I believe, will coincide with all of those who have had any experience whatsoever along these lines, and should not act as an incentive to those who haven't to give it a trial.

Kelly (Operative Gyn.), in speaking of ovariotomy, says, "Out of 228 women who survived this operation who were under forty years of age and of this number capable of bearing children, 120 actually did give birth to 230 children," and he further states that no age limit can be set upon the utility of the ovaries until it has been demonstrated that the internal secretion also ceases with the

menopause, a conclusion which is, for the present at least, apparently at a variance with clincial facts." This fact alone should emphasize the importance of and the actual necessity of conservative treatment of the tubes and ovaries.

Likewise in the treatment of tubular inflammatory diseases have I always practised and urged conservatism, if possible removing the diseased tube on one side and conserving the healthy one on the opposite side. In pyosalpinx, next to the expectant treatment, simple evacuation of the pus cavity will furnish us with excellent results with but very little danger, or risk of life of the patient. The result obtained in the conservative treatment of the subacute pelvic inflammatory diseases is really surprising and well worth a trial. Especiallly do I recommend the application of hot air, which has been for some time quite the popular form of treatment of these conditions. This form of treatment is only applicable to those patients who are afebrile.

The method of producing hyperemia is by having the patient stripped and then placed in a cabinet, just large enough to cover the pelvis. This cabinet is made of asbestos and heated by electric lights, which when lighted produce a high degree of heat. The temperature is raised from 115-135 C. and the patient remains in the cabinet from fifteen to twenty minutes, and the treatments are given about three times a week. After removing the cabinet the paient is thoroughly dried and made to rest for awhile. This is of course used in conjunction with hot douches and rest in bed.

(For application of heat to the vaginal vault the Fohn's apparatus has been used through a wooden speculum.)

In conditions where pelvic adhesions exist as a result of a parametritis the use of a colpeurynter filled with mercury, starting with 50 grams and gradually increasing up to 150 grams, and introduced into the vagina, first having the patient's hips well elevated. This is allowed to remain in the vagina from ten to twenty minutes each treatment.

In the foregoing I have intentionally refrained from giving personal statistics or report of cases, my sole object in presenting this paper is to once again impress upon you the significance of the deprivation of the female generative organs, and to urge that conservatism be more frequently practised.

The Role of the X-Ray in Progressive Medicine.

By ADOLPH HENRIQUES, M. D., New Orleans.

Although it is only seventeen years since the accidental discovery of the X-ray by Rœntgen, yet within this period this new branch of medical science has made rapid progress, and the end is not yet. yet.

Hailed at first as a panacea for the many chronic and incurable ailments that beset humanity, its development has proven that its greatest value lies within the province of diagnosis, nevertheless as a therapeutic agent either alone or combined with other measures, it is not without some merit. In the beginning it was applied indiscriminately by many possessing the apparatus necessary for its production. This was at a time when little was known of its physics, its physiological action, or its dangers. Many an old-time coil or static machine was purchased, only to be relegated to the attic when found not to effect the imaginary curative results. However, through the tireless and persistent efforts of a band of undiscouraged workers, scattered throughout the medical world, much has been done towards elucidating the true diagnostic and therapeutic value of this important new agent, and the end is not yet.

To-day there is no department of medicine upon which the X-ray has not taken hold to a greater or less extent. Among the many factors which have made these advances possible should be prominently mentioned the introduction of the interrupterless motor generator, the improved technic of making skiagraphs, the development of stereoscopic skiagraphy, improved methods employed in the fluoroscopic examination of the heart, aorta and digestive tract, the introduction and use of X-Ray filters which permit the treatment of more deeply situated tissues, the desensitization of the skin thereby allowing the application of a quantity of X-rays two to three times that formerly employed, and the more general use of apparatus for the measurement of the dose of the X-ray.

It is not the object of this paper to cite cases in support of any of the statements which follow, but rather to point out what is being done daily in the laboratories of competent radiologists.

The internist formerly was occupied principally in the examination of the heart and aorta. To-day the X-ray gives him information of as great value as it does to the surgeon. The presence of

aneurism, its differential diagnosis from tumor can be seen. Aortic dilatation, the position and exact size of the heart within one millimeter, unilateral or localized enlargement of that organ, and pericardial effusions are demonstrable. Enlarged thymus can in some cases be shown.

To those who have done much work with the Ray in pulmonary conditions, it is an incontrovertible fact that the majority of cases of tuberculosis of the lungs can be recognized earlier, and that the extent of the disease can be shown more accurately than by any other known method of diagnosis. For this, recourse is necessary to the skiagraph. Localized pleurisies and empyemas are recognizable as a rule.

It is in diseases of the digestive tract that much important information is afforded. Certain conditions of the esophagus, such as diverticulum, stricture, atony and cardio spasm can be determined. It is necessary to administer some substance opaque to the X-ray in the study of diseases of the digestive tract. Bismuth subcarbonate is the substance principally employed, and it is remarkable how much of this can be given without deleterious effects. The writer has administered more than one hundred grams within eight hours, although as a rule doses of one-third this quantity are employed. The position, size, shape, peristaltic movements of the stomach are easily seen. Pyloric stenosis, the motor function of the stomach, hour-glass constriction, ulcers and cancer of the stomach, the location and differential diagnosis of the two latter, are more satisfactorily demonstrated with the X-ray than by any means of diagnosis next to an exploratory laparotomy.

Duodenal ulcers cannot as yet be shown by means of the Ray. Gall stones are demonstrable in some few cases. Ptosis of the colon, as well as that of the stomach, is easily recognized, as also abnormal loops of the large intestine. In most cases it is possible to determine if abdominal tumors are connected with the stomach or intestines. Renal, ureteral, or vesical calculi are demonstrable in eighty-five per cent of all cases.

The X-ray is frequently resorted to by the surgeon for the recognition of fractures, and to determine their apposition after reduction. It is without a rival in the recognition of intra-capsular fractures of the hip, impacted and sub-periosteal fractures and those involving the carpus, tarsus, and epiphyses. Fractures and fissures of the skull can be recognized in most cases. The Ray is

of undoubted value in the recognition of dislocations, epiphyseal separations, foreign bodies, cervical ribs and anatomic variations of the skeleton.

In pathological conditions of bones and joints, valuable information is frequently afforded in the diagnosis of the various forms of arthritis, tuberculosis, syphilis, osteomyelitis, tumor and cyst of bone. The extent and direction of sinuses and fistulous tracts can be recognized by bismuth injections.

The presence of intracranial tumors especially those of the pituitary body can very often be shown.

In connection with injections of colloidal silver salts, the presence of hydronephrosis and renal tumors can often be detected; ureteral kinks can be seen with an opaque catheter in situ.

It is a matter of more or less general knowledge that the best treatment, i. e., the one followed by fewest recurrences in the handling of accessible malignant growths, is complete surgical excision followed by prompt and thorough application of the X-Ray. In this connection it is well to refer again to the use of X-ray filters which permit a quantity of X-Rays double that formerly effective to reach tissues situated several inches below the surface of the skin. The use of instruments for measuring the quantity of X-rays absorbed by the tissues insure the administration of doses which will not be excessive.

In conditions about the ear, nose and throat such as foreign bodies in the trachea, or esophagus, empyemas of the accessory sinuses of the skull, cysts and tumors of the adjoining bony parts, unerupted or impacted teeth, disease of the cervical vertebra the ray is of undoubted value.

Foreign bodies, metallic in character, in or about the orbit, can be detected and localized within one millimeter of their true position. Supra-orbital recesses sometimes present and involved with an infection of a communicating frontal sinus of the ethmoidal cells can be shown better by the ray than any other means. Often the location of a tumor or gumma, causing pressure upon the eye or some of the nerves supplying it, can be determined.

The presence of hyperostoses or of callus formation compressing nerves and giving rise to symptoms, the changes in the cranium due to persistent localized or general intra-cranial pressure, and the premature closing of the cranial sutures often aid the neurologist in reaching a conclusion. Over thirty per cent of epileptics show changes in the bony structure of the cranium.

In children the changes of the bones in tuberculosis, congenital syphilis, scurvy, rachitis, osteomyelitis are well shown by the X-ray. Tuberculosis of the spine is recognizable. The demonstration of enlarged thymus and its treatment by the ray under it of service here.

In obstetrical cases at times it is possible to differentiate between tumor and pregnancy. The occurrence of twin pregnancies and the position of the fetus can often be shown. In inoperable cases of fibroma the X-ray is being advocated to produce an artificial menopause by atrophy of the ovaries with resulting sterilization, checking of hemorrhage, diminution in the size of the fibroma and in a few cases its disappearance.

In a few skin affections the ray is of service, principally in the treatment of superficial epithelioma (following curettement), in the production of epilation in parasitic diseases of hairy regions, in chronic eczemas, localized pruritus, in some cases of keloids, psoriasis, lupus and mycosis fungoides.

Charity Hospital Bulletin.

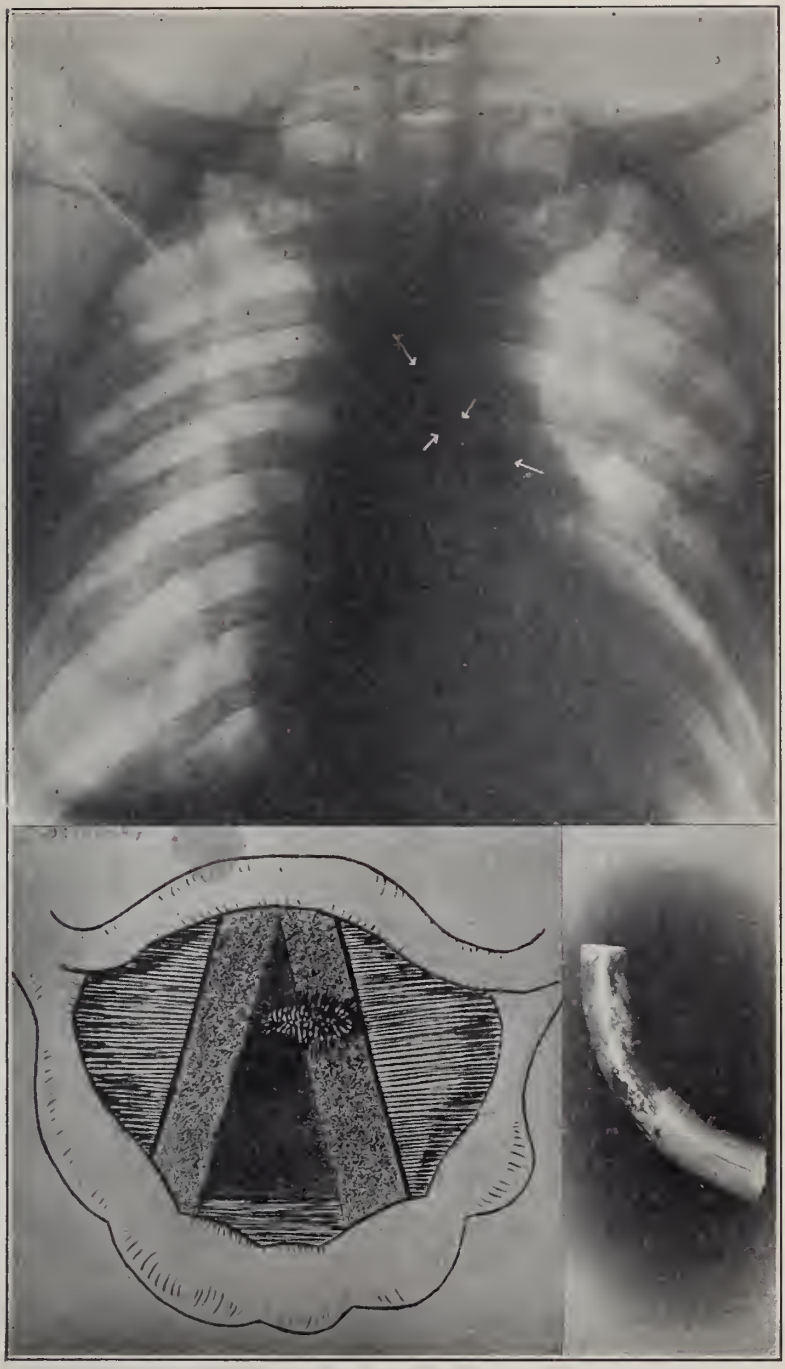
In Charge of Dr. J. A. Danna, House Surgeon.

Foreign Bodies in the Respiratory Tract Removed by Direct Laryngoscopy and Bronchoscopy.

By DRS. HOMER DUPUY and L. DePOORTER, New Orleans.

Direct laryngoscopy and bronchoscopy for the removal of foreign bodies from the lower respiratory tract are now the methods of selection. Unusual interest properly attaches itself to the report of cases in which these methods have been successfully applied. The records of the Charity Hospital, the transactions of the Orleans Parish Medical Society, and the Louisiana State Medical Society, offer no evidence of the successful application of this comparatively new procedure in the extraction of foreign bodies from the respiratory apparatus. We believe from this evidence that we are among the first, if not the first in our State, to record a successful experience with these methods.

Another feature of interest presented by this report is the val-



Top: Radiograph furnished by Dr. Amédée Granger. Asterisks indicate position of canula.
Left: Shows position of cockleburr in larynx.
Right: Canula removed from bronchus.

ILLUSTRATING ARTICLE OF DRS. DUPUY AND DEPOORTER.

uable aid afforded us by the radiograph in first locating the foreign body. The bronchoscopy proved that the radiographic data were absolutely precise and reliable.

Case I. John T., colored male, aged 37, was tracheotomized several years ago for a laryngeal stenosis. Constant wear of the inner tube resulted in its breaking away from the collar of the canula and slipping down into the lower respiratory tract. No dyspnea followed, and three months after this accident he came to the Charity Hospital for the relief of violent paroxysmal coughs. Lung examination revealed nothing. Drs. M. Souchon and Larose, in whose service the patient was placed, kindly referred him to us. Dr. Amêdée Granger made a radiograph, with the result that the canula was by this means definitely located in the left bronchus, one inch below the tracheal bifurcation. On October 20, 1912, bronchoscopy clearly revealed the foreign body exactly in the region indicated by the radiograph. After the usual clearing of the field by frequent sponging, the secretions being unusually abundant, the impacted canula was removed by the long Jackson forceps.

Case II. Charles M., colored male, aged 8 years. On October 20, 1912, was throwing cockleburrs in the air and attempting to catch them with his mouth. Each burr caught was retained in the mouth. When he had well nigh filled his mouth with his trophies of victory, spurred by the similar competitive efforts of the other pickaninnies, the one too-many effort caused a burr to be inspired. Marked dyspnea followed, and efforts for the extraction of the burr were instituted by the physicians in the country. He was finally seen by us in the Charity Hospital. The laryngoscope revealed a burr firmly imbedded in the left vocal cord and impinging on the glottis anteriorly and laterally. The edema surrounding the burr reduced the glottis to a mere slit. When quiet, there was not the slightest apparent embarrassment in breathing. Exertion, however, brought on dyspnea. The patient was so intractable, and so dyspneic on the least exertion, that on October 24, 1912, the trachea was quickly opened to safeguard life, and ether administered through the tracheal opening. Direct laryngoscopy showed the foreign body in situ, and afforded a well-illumined avenue for its quick removal. The patient made an uneventful recovery.

The valuable assistance of Drs. C. A. Weiss and Estopinal greatly facilitated the delicate technique of these procedures.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The Business of Medicine.

The medical profession is altogether too altruistic, at times. We do not assail the dictum of ethics which places the evolutional ideas of the profession at the service of the people, even when it reaches the public through the cash registers of the manufacturer and the druggists as beneficiaries in chief. We have no animadversions to offer upon the spirit which orders the discovery of the physician to be patented by someone else, lest the glory and revenue might in some way discount the usefulness of the discoverer.

The medical profession, more than this, is a victim of the ordinary economics of society, and presumably the doctor has no business with business. All of the easy mark mining stock or get-rich-easy promoters have a preferred list of victims in the medical guild and their collections of pretty lithographs of useless stock certificates would fill a large public dumpcart, but there are no compensations. Even the legitimate subject of the doctor's interest in life, the patient, looks upon the physician as a necessary evil, employed in exigency and paid when expedient or, more often, not paid at all.

To begin with, the doctor spends half his time in the service of those who cannot pay, and it is poor business that he should have to spend any part of the other half of his time on those who can but who do not want to pay.

If the doctor waits long enough (but not too long), he may, it is true, have a sort of vendor's lien claim on the estate of a departed client, sharing in this deferred requital with the necessitous undertaker and the predilected attorney, if these latter two leave anything for the doctor.

There is a rift in the clouds, however, and the time is near when the doctors themselves will look after the business of their occupation. On this point we read with some interest that one of the Western States has proposed to inaugurate among the local societies of medical men a sort of intelligence bureau, through a com-

mittee which shall make regular lists of the non-paying patients, in order that the members of the profession may be safeguarded, in this much, that they will at least know whether a patient is in the habit of not paying the doctor, before the case is undertaken.

If this suggestion becomes general practice it will serve a good purpose and may lead to the next need of the profession, namely, a collection bureau composed of representatives of the profession itself, to which all known bad debtors may be reported. Such a bureau could do far more in justifying bad accounts than the usual collection agencies or lawyers can, for the whole matter would change from a purely business proposition to one of economics, based upon the element of pride first and upon the second, no less important, question of service, for the gradual refusal to treat systematic dead beats would be a natural and inevitable result.

From the earliest period of the practice of medicine until now, the doctor has been the natural prey of the whilom patient and there has been a false sense of *noblesse oblige* on the part of physicians which has compelled silence as to the abuse of them by their clientage. In these days of utilitarian practice, however, this must change and with the struggle for existence, in the clarity of better living, the parasites should be shown up and made to bear their natural share in the burden of community expense, and if there is no popular way to bring this end about, then the medical profession must arrive at its own plan. After a while we can have on every doctor's table a regular Bradstreet of local information, so far as medical practice is concerned, and the victimization of a long-suffering profession will cease.

Christian Science in Louisiana.

An interesting case has just emerged from the Louisiana Courts, through the decision of a local Judge, passing upon the case of a Christian scientist who officiated in his quasi-medico-religious capacity in the instance of a child, which died of diphtheria, wthout usual treatment.

The case has been and will be hereafter known as the "Henderson Case," and it is interesting to follow the reasoning of a judicial mind interpreting the law which finally arrived at the conclusion that "the accused has not violated any of the terms of the statute; that he practised the religious tenets of his church, and that such

practice is under the very sanction of this law." So far the Court may have gone and elicited the conclusion that the law lacked some essential which protected religious sects in the practice of medicine, and that by exemption the practice of religious medicine was sanctioned in this State and that by creating religious organizations any cult in medicine might be allowed to practise in this State.

The careful review of the decision of the Court fails to discover any consideration of the real occasion of the suit before the Court, namely, that a human life was sacrificed in the exploit of this cultist and that in the practice of a purely psychic function, no matter how derived, the practice (whether professed or not) set aside the known and proven remedial measures which might have saved the life involved.

We have no desire to bring into question or dispute the powers of a superior force, but we do believe that the interpretation of the means and ways of that force does not rest with those alone who pass the burden on and who close their eyes and use their lips, abandoning the other God-given attributes of intelligence and adaptation to physical means of the sorts which have entitled a hundred material minded men to high places in the House of the Immortals.

We are not endeavoring to reverse the decision of Judge Fisher, out of Court, and we fully agree with his final word that the example of the Christian who prays for the relief of his own or another's illness is an example which might well appeal to all who appreciate the many dispensations of the Almighty—but in appreciating the motives of the Judge, and of humanity, we may not class ourselves among the birds, for whom both food and raiment are found. It is the sublime privilege of the human being, under an endowment of a supreme intelligence, to exercise that free will, which lets him multiply the talent the Lord has given him, by a multiplied application of that intelligence, so as to avail of all things which may make his kind better and greater—not trusting to the Maker to find the food and raiment and other things essential to his higher development.

Abstracts, Extracts and Miscellany.

Department of Therapeutics and Pharmacology.

In Charge of Dr. J. A. Storck and Dr. J. T. Halsey, New Orleans.

Hormonal.—Dittler and Mohr report research to determine whether the theory of a hormone regulating peristalsis is tenable, and whether hormonal corresponds to this assumption. Their findings were negative in regard to any specific action from the hormonal or intestinal peristalsis. Some of their experiments were made on laboratory animals with a hormonal made from the spleens of animals. A marked reduction of the blood pressure was observed invariably immediately after the intravenous injections. It was generally transient, but occasionally lasted for some time, and the heart action and respiration also showed its effect, proportional to the dosage. The coagulability of the blood was also much reduced after the injection. Another effect was a pronounced stimulation of the salivary glands. An influence on the peristalsis was noted in only four of eighteen trials, and its features demonstrated that it is a secondary action, the result of the drop in the blood pressure. An isolated loop of intestine floating in Ringer's solution showed no effect from hormonal added to the fluid. They say that their research affords an experimental basis for judgment of hormonal in the clinic. They regard it as dubious whether it should be used further for therapeutic purposes, especially as the injections are by no means harmless, on account of the frequent resulting commotion in the circulatory apparatus. In their experiments with cats and rabbits, it induced partial asystole and remarkable fluctuations in the blood pressure. One cat died from paralysis of the heart after injection of 2.5 c.c. of hormonal per kilogram of body weight. Sabatowski's more recent research has confirmed their conclusions. Dittler and Mohr report a case of collapse in the clinic under hormonal.—*Zeitschrift für klinische Medizin*, Berlin.—J. A. S.

The Experimental Production of Basedow's Disease.—Barach *(Centralbt. f. Chir.*, 1912, xxxix, 316) says that Eugene Bircher's interesting report on the experimental production of this disease by implanting pieces of the thymus in the omentum of dogs, leads him to report again in a preliminary way, he having already

reported on the same subject (*Ibid,* 1911, xxxviii, No. 35). The material he employed was from human goiters, which were mostly of the parenchymatous variety, rarely of the colloid. The goiter tissue was ground up fine a few hours after operation and injected into the animals through a syrings, with a large needle, subcutaneously or under the peritoneum. The subcutaneous injection did not produce noteworthy results in the desired direction. The intraperitoneal injections, however, carried out in a series of dogs as well as rabbits and rats, produced the typical Basedow's disease. The dogs showed much excitement, a nervous condition, and much wasting. There was also marked falling out of the hair and diarrhea. There were, further, tachycardia, glycosuria, lymphocytosis, and in some, marked exophthalmos was observed. In one of the dogs, in consequence of the exophthalmos, there developed a corneal ulcer. The experiments were not always positively successful, but were most successful in young animals and in females. The amount injected was from 5 to 20 c. c., and was usually repeated at intervals of about eight days. The exophthalmos developed in from twelve to fourteen days. Klose employed for the same purpose the fluid pressed from ordinary goiters and exophthalmic goiters, but succeeded only with the fluid from the latter, in producing symptoms of a transitory character, by injecting it intravenously. Exophthalmos occurred only in two cases and only for two days. This would seem to show that the active principle in Basedow's disease, was present only in small amount or not at all in the fluid pressed out. From Bircher's and Barach's experiments it is shown that the typical picture of Basedow's disease can be produced from material other than that arising from patients suffering from the disease.—J. A. S.

Carbohydrate Cures in Diabetes.—Strauss (*Deutsch. med. Woch.*, 1912, xxxviii, 441) gives a general summary of the treatment of diabetes by different dietetic measures, especially those dependent upon periods of limitation of the diet to certain specific substances. With reference to "milk cures," he states they are of definite value in certain cases of diabetes, but tolerance of the milk must be determined for the individual case. The various carbohydrate cures owe their beneficial effect to the absence of animal protein and their low caloric value, and hence they are practically starvation cures. Another factor is that the starch is very slowly absorbed, and this slowness in assimilation prevents a marked

increase in the glycosuria. It has been established that when carbohydrates are given in small amounts distributed throughout the day that they do not produce as marked glycosuria as when taken in large quantities. Consequently an essential feature of the carbohydrate cures is to give the carbohydrate in small repeated amounts. Experience with the oatmeal cure has been fuller than with other carbohydrate cures, but Strauss does not believe that it is superior. Lately a number of observers have reported equally good results with the wheat meal treatment of diabetes. The "potato cure" sometimes will be successful when other methods fail. Strauss adds that it is most important not to give a mixture of different starches, but to adhere definitely to a single form of carbohydrate, for better results are obtained when the carbohydrate is given in a pure form than when combined. The carbohydrate days cannot be kept up for long periods, for they furnish less than the required amount of protein. Attempts to make up the required protein by the substitution of various vegetable proteins for animal protein thus far have not been successful. Strauss has had excellent results by the interposition of a fluid day in the treatment of severe diabetes. The patient is allowed on this day nothing but tea, coffee, bouillon, mineral waters, wine or brandy, and sometimes oranges. The author believes that his experiments and clinical observations indicate that inulin is better tolerated in diabetes than any other form of starch. The addition of inulin to the diet does not increase the glycosuria. He found that comparatively small amounts were recovered from the feces after its administration, and therefore he believes that it is largely assimilated. Strauss suggests the use of inulin, especially in severe cases of diabetes with acidosis by the method of a course of several "inulin days." As inulin itself is very expensive and difficult to obtain, vegetables rich in inulin should be ordered, such as artichokes, salsify, dahlia tubers, etc.—J. A. S.

Administration of Bichlorid of Mercury.—Eight years ago Haas began to test the value of the administration of bichlorid of mercury in the treatment of congenital syphilis among the cases occurring in the pediatric service of Holt at the Vanderbilt Clinic. It was found that the effect on the specific process, though positive, was slight, whereas, gastro-intestinal and nutritional disturbances when present, cleared up in a most remarkable manner. By way of illustration: An infant 6 weeks of age, anemic, with marked

desquamation, rugæ, snuffles, large liver and spleen, birth weight 6½ pounds, present weight 7 pounds, has had numerous green mucous stools since birth, although breast fed. The mother was given bichlorid of mercury, 1-32 of a grain, three times a day; when seen 48 hours later, the stools were yellow, no mucus, the syphilitic process unchanged. After a week, however, this, too, showed slight improvement. A gain in weight of half a pound was registered. No other changes had been made in regimen of mother or infant.

After noting the regularity with which this occurred in patients suffering from congenital syphilis, it was decided to test its value in gastro intestinal disturbances among non-specific nurslings. The result was most encouraging. Between 35 and 40 per cent of the patients were benefited; no harm resulted even in those patients who had not improved. The drug was administered in more than 200 cases. The dose, excepting in the earlier cases, was tablet triturate of bichlorid of mercury, 1-32 of a grain, administered to the mother three times a day after meals. The cases were not selected. Any nursling not prospering was considered a good subject. The effect on the mother of a syphilitic child was positive, rapid and striking, the general tone and color improving visibly. On the non-specific mother the effect was sometimes that of a general tonic, but in most cases no effect was observed. In a few cases the mother lost weight. The effect on the quantity of milk supplied, according to the statements made by the mothers, varied within wide limits. Usually there was an increased secretion; in some cases no change, and in a few cases a distinct diminution in the supply. The quality of the milk would appear to have been improved. In a number of instances, in which, under poor advice, nursing had been discontinued, and the milk had practically disappeared, it was possible to re-establish the function, in one case after twelve weeks. It seemed that the mercury was of some assistance in these cases, although this is not at all certain, since we know that the function can be re-established by simply permitting nursing to be resumed.—*Archives of Pediatrics.*—J. A. S.

Action of Colloidal Selenium A on Cancerous Glands.—Following the experimental work of Wassermann, Thiroloix, and Laucien (*Bull. et men. Soc. med. d. hôp. de Paris,* 1912, 3 s, xxxiii, 197), found by pulverization a product of selenium which they called "Selenium A." It has the physicochemical properties

of ordinary selenium; was a colloid of fine suspension, stable, isotonic, and non-toxic to animals. They injected intravenously 4 to 8 c.c. of this once every week for ten weeks into a patient with a painful, ulcerated, non-syphilitic tumor of the tongue accompanied by enlarged, hard submaxillary glands. Each injection was followed by chills, and a temperature of 39 to 40 degrees lasting from one to three days. No other untoward symptoms were noted. After the first injection the glands seemed to decrease in size and become less painful. After the seventh, the submaxillary gland suddenly increased in size, and became fluctuant. Three punctures obtained nearly 20 c.c. of an aseptic fluid. After the last, the gland had almost completely disappeared. Cytological examination of the centrifuged specimen showed amorphous masses around which were mononuclear cells and rare neutrophilic leukocytes, endothelial-like cells with vacuolated protoplasm and pavement cells. Chemically the liquid gave positive urobilin test, and showed selenium apparently fixed in the cells. From this case, Thiroloix and Laucien believe that selenium can be easily obtained as a colloid suitable for intravenous use, that it only affects very vascular epithelial masses, and that its action is cytolytic. Finally, that though this may be of theoretical importance, it is not possible to deduce from this observation a practical application.—J. A. S.

The Value of Inulin as a Foodstuff.—Lewis (*Jour. Amer. Med. Assoc.*, 1912, lviii, 1176), relates his experiments that were undertaken to determine the value of inulin as a substitute for starch in the diet. Inulin occurs in the roots of many plants, particularly in the artichoke, elecampane, dandelion, dahlia, and other similar plants. The feeding of these vegetables has been advocated by many as a substitute for starch in the dietary of diabetes. This recommendation is largely based upon the fact that the administration of these vegetables causes no increase in the amount of sugar in the urine. Strauss reports the feeding of pure inulin with much benefit in two cases of diabetes. Pure inulin is very expensive and difficult to obtain, and hence its use is not practical. Certain observers have claimed that inulin produces no increase in the sugar excretion, because it is not absorbed. Neubauer found in a case of levulosuria no increased levulose content of the urine after feeding grams of inulin. If inulin were converted in the body to levulose, then a large increase in the levulose content of the urine was to be expected. No inulin was found in the feces, but the

patient observed a strong gas formation in the intestine during the period following the meal, indicating bacterial decomposition of the inulin. The colon bacillus and other intestinal bacteria decompose inulin without the production of sugar. Lewis says that the facts he obtained in his experiments seemd to indicate that any utilization of inulin can occur only after hydrolysis by the gastric juice. The extent of this hydrolysis must vary with conditions in the stomach. If diet is of such character that it leaves the stomach soon, the action of the acid gastric juice is checked by the intestinal reaction before the inversion of inulin can proceed far. The acidity of the gastric contents also must influence the rate of inversion. The character of the diet and individual peculiarities both play a role here. Hence the percentage utilization of inulin for any individual must vary and cannot be determined except by experiment. Any inulin which leaves the stomach unchanged is liable to escape utilization and undergo bacterial decomposition in the intestine, a decomposition which results in no formation of carbohydrates.

Any inulin which escapes this bacterial action is probably eliminated unchanged in the feces. In view of these facts, as well as the inability to administer more than comparatively small quantities, the value of inulin as a significant source of energy in human dietaries must be questioned.—J. A. S.

Medical News Items.

Medical Society of the Missouri Valley.—The spring meeting of this society will be held at the Coates House, Kansas City, March 20, 21, 22, with the third day devoted entirely to clinics in the various hospitals. The Jackson County Medical Society will be the host. A symposium on cancer, a dinner at the Coates House, and an address by Surgeon-General Rupert Blue will be features of the first day.

St. Landry Medicos Meet.—The St. Landry Parish Medical Society held its annual meeting on January 9 and elected the following officers for the ensuing year: Dr. I. N. Adams, Eunice, president; Dr. Z. T. Young, Opelousas, vice-president; Dr. Paul Foster, Lawtell, treasurer; Dr. E. T. Lafleur, Flynn, secretary. The attendance was satisfactory and the session instructive.

East Baton Rouge Society Meeting.—The regular monthly meeting of the East Baton Rouge Parish Medical Society was held January 8, 1913, with the following members present: Drs. Powers, Tucker, McVea, Robert, Cushman, Kemp, P. H. Jones, Vialet, Sitman, Stirling, Singletary, R. P. Jones, Duchein, Hyde, T. S. Jones, Caruthers and Staring. The usual routine business was transacted, after which the annual election of officers was held, resulting as follows: Dr. Robert C. Kemp, president; Dr. George W. Sitman, vice-president; Dr. Willard S. Cushman, secretary and treasurer. Committees were appointed to make arrangements for the entertainment of the Louisiana State Medical Society, which meets this year at Baton Rouge, La. The meeting was followed with a banquet at the Istrouma Hotel.

Hinds-Rankin Medical Association.—Under a charter from the State Medical Association, the Hinds-Rankin Medical Association, composed of physicians from those two counties, was organized on December 19. The following officers were elected: Dr. R. S. Curry, Jackson, president; Dr. T. M. Hall, Clinton, vice-president.

School Hygiene Delegates.—The following are the delegates appointed by Governor Hall to the Fourth International Congress on School Hygiene, to be held in Buffalo, N. Y., August 25 to 30, 1913: T. H. Harris, superintendent public education, Baton Rouge; J. M. Gwinn, superintendent of public schools, New Orleans; Dr. Oscar Dowling, president of the Louisiana State Board of Health; Dr. Isadore Dyer, dean of the medical department, Tulane University; Dr. Edmund Moss, chief medical inspector, Board of Education, New Orleans; Miss Jean Gordon, vice-president state child labor committee and assistant factory inspector; Miss Agnes Morris, instructor in school and home hygiene, Louisiana State University extension department, Baton Rouge; Mrs. Joseph Friend, Southern president of the Mothers' Congress, New Orleans; Miss Mary E. Griffith, principal Danneel School, New Orleans; Dr. W. W. Butterworth, professor diseases of children, Tulane University; Dr. Andrew G. Friedrichs, dean dental department, Tulane University; Dr. Brandt Van Blarcom Dixon, president H. Sophie Newcomb Memorial College for Women; Dr. Maud Loeber, inspector of prisons and asylums, New Orleans; Miss Eleanor Riggs, secretary of Public School Alliance, New Orleans; Miss Margaret Hanson, principal New Orleans Normal School, New Orleans; Prof. Andrew C. Coffey, professor of education, Louisiana State University; C. E.

Ives, state institute conductor, Baton Rouge; C. C. Huckaby, principal of the High School, Shreveport; Prof. W. O. Scroggs, professor of sociology, Louisiana State University; Superintendent T. O. Brown, superintendent of public schools, Monroe; Miss Edith Dupre, Southwestern Industrial Institute, Lafayette; Miss Augusta Nelken, critic teacher, State Normal, Natchitoches; Miss Lizzie Trousdale, Louisiana Industrial Institute, Ruston; Dr. David Spence Hill, professor of psychology and secondary education, Tulane University. The above-named persons, with the exception of the last eight, are members of the state organizing committee named by Prof. David Spence Hill, of Tulane University, who is acting chairman of the committee.

Medical Lectures at the Y. M. C. A.—The physical department of the Young Men's Christian Association is conducting a series of lectures which will prove to be of great interest to all the members interested in physical training. The course is free to all members over sixteen years of age. Non-members will be admitted upon payment of a small admission fee. The lectures are to be given every Friday night at 8 o'clock. The first one was given by Dr. E. L. King on "Anatomy," on January 3, and this is to be followed by a list of lectures to be given until the course is concluded, by a number of New Orleans physicians.

New Orleans College of Pharmacy Taken Over.—The New Orleans press of January 17 announced the absorption of the New Orleans College of Pharmacy by Loyola University. The present location of the school will remain unchanged.

Trustees of Deaf and Dumb Asylum.—Governor Hall has named the following as members of the Board of Trustees for the Louisiana Deaf and Dumb Institute: J. H. Percy, vice Henry Jastremski, term expired; T. W. Atkinson, vice himself, term expired; D. B. Berden, vice John F. Irwine, term expired; Boatner Carney, vice W. C. Carruthe, term expired; Williams McCausland, vice G. A. Scott, term expired; H. C. Paulsen, vice A. V. Vredenburg, term expired; C. K. David, vice Emile Weil, term expired.

Seventeenth International Medical Congress.—The Bureau of the Congress has requested Dr. F. de Courmelles, of Paris, to prepare a report on, "The X-Ray and Radium in Gynecology," for the sections on Radiology and Gynecology. Dr. de Courmelles, in order to cover the ground as completely as possible, requests

that any suitable observations be addressed to him as soon as possible at No. 26 rue de Chateau Dun, Paris. An exhibition of rare and curious objects relating to medicine, chemistry, pharmacy and the allied sciences is being organized by Mr. Henry S. Wellcome, including the medical deities of primitive peoples; charms connected with the art of healing; specimens of surgical instruments in the endeavor to trace their evolution; also models of ancient pharmacies, laboratories and relics of the practice of alchemy.

Traction Company Gives X-Ray to Sanitarium.—The Louisiana Traction and Power Company, through its president, J. A. Landry, of Lake Charles, has donated an X-ray machine to the local sanitarium association of Lake Charles.

Gifts and Bequests to Hospitals.—By the will of Louis Schaefer, who died on November 26, the New York German Hospital will receive $2,000. By the will of Peter Reid, who died in Passaic, N. J., on December 7, Passaic charities will receive $340,000. This amount includes a trust fund of $200,000 for the Passaic General Hospital, $50,000 to the Passaic Home and Orphan Asylum, and $20,000 to St. Mary's Hospital. Peter Doelger, who died on December 15, left $15,000 to philanthropic organizations, which includes $3,000 to the New York German Hospital and Dispensary, $1,000 to Mount Sinai Hospital, $6,000 to the Sisters of St. Francis, and $3,000 for the Home for the Aged of the Little Sisters of the Poor.

Pathological Library of Bellevue Open to Physicians.—Announcement is made by the general medical superintendent of Bellevue Hospital that the library in connection with the pathological department of the new Bellevue Hospital, corner of Twenty-ninth Street and First Avenue, is open for the use of all practising physicians.

A Low Death Rate in New York Last Year.—According to the annual statement of vital statistics of the City of New York, just issued by the commissioner of health, the past year's death rate was the lowest the city has ever experienced, and it is believed that it will compare favorably with that of any other large city of the world, with the exception of Paris.

Preventive Medicine Cure for Poverty and Misery.—President Emeritus Charles W. Eliot, of Harvard University, said in a recent public lecture that preventive medicine is capable in the

future of doing away with poverty and misery, of remedying industrial disputes and of contributing to the cause of international peace. The medical practioner of the future, he declared, would be one who prevented disease rather than cured it. More than half the physicians of the country, he believed, eventually would be engaged in preventive rather than curative medicine.

The American Association for the Advancement of Science.—At the Cleveland meeting, held at the end of December and the beginning of January, Professor E. B. Wilson, of Columbia University, was elected president.

Appointments at Harvard University.—Harvard University announces the following appointments: Dr. Harvey Cushing, professor of surgery; Dr. George Gray Sears, clinical professor of medicine.

A Second International Congress of Life Saving and Prevention of Accidents is announced for September 9 to 13, to be held in Vienna, Austria, under the patronage of His Imperial Highness, Archduke Leopold Salvator. An imposing preliminary notice has issued and all interested are invited to address the Congress office at Radetzkystrasse, No. 1, Vienna 3, Austria.

The Louisiana State Board of Health Adopts Resolutions on the Death of the Late Dr. P. E. Archinard.—The Journal is in receipt of extended resolutions formulated by Dr. W. H. Seeman and adopted by the Louisiana State Board of Health on December 16, commemorating the death of Dr. P. E. Archinard, for many years the official bacteriologist of that body.

European Travel Study Tour Planned.—Notice has been received by the Journal from Dr. Richard Kovács, at No. 236 East Sixty-ninth Street, New York City, that he is arranging plans for a European Travel Study Tour, leaving New York on July 3, and intended to visit the most prominent cities and resorts of Continental Europe. All interested may address Dr. Kovács at the address given.

Hot Springs and the New York Academy of Medicine.—The New York Academy of Medicine, on December 5, 1912, endorsed the movement to investigate the fitness or otherwise of the Hot Springs, Arkansas, waters. The Academy went even further and recommended the wholesale examination of spas in this country, with a view to "diminish the annual exodus" to foreign lands.

XVIIth Congress of Medicine.—The Section on Dermatology and Syphilography has been organized with Sir Malcolm Morris, K. C. V. O., F. R. C. S. (Edin.) as president. The subjects for discussion announced are (1) Epithelioma of the Skin, Benign and Malignant; (2) Alopecia Areata and Allied Conditions; (3) Syphilis, Its Dangers to the Community and the Question of State Control; (4) Treatment of Syphilis by Salvarsan and Other Substances; (5) Vaccin Treatment of Diseases of the Skin. Titles of papers and correspondence should be addresed to Dr. J. M. H. McLeod, Secretary of the Dermatological Section, No. 13 Hinde Street, London, W. England.

Fourth International Congress on School Hygiene.—This Congress will meet at Buffalo, New York, on August 23 to 30, 1913, under the presidency of Prof. Charles W. Eliot, late president of Harvard University.

Legislation for Proper Registration of Vital Statistics.—The Association of Life Insurance Presidents has recently announced that, acting on the recommendation made at its sixth annual convention, it would concentrate its health reform activities during the year upon legislation looking toward the proper registration of vital statistics and the enforcement of such laws as are already enacted. This will compel the health authorities of all cities, counties and States to obtain accurate information on the extent and characer of all diseases and mortality in their districts.

Indolence Causes Great Death Rate.—According to F. F. Rittenhouse, of New York, a speaker before the American Association for the Advancement of Science, indolence and physical inactivity are the causes of the great increase of the death rate among people over 40 years of age, which, since 1880, has increased 20 per cent. Dr. L. O. Howard, of Washington, declared a $357,000,000 annual loss is caused by diseases transmitted by mosquitoes and flies.

Notable Merging of Medical Schools.—It is announced, according to the *Journal of the A. M. A.*, that the University Medical College and the Medical College of Virginia, in Richmond, have merged under the latter-named college.

The same authority (January 18, 1913) states that the Memphis Hospital Medical College will become merged into the Medical Department of the University of Tennessee.

The United States Civil Service Commission announces an open competitive examination for chief of the department of medicine, Philippine General Hospital, for men only. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position in Manila, Philippine Islands, at a salary of $4,000 a year, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer or promotion. It will not be necessary for applicants to appear at any place for examination. Their eligibility will be determined upon the evidence furnished in connection with application and examination Form B. I. A. 2 concerning their training and the work which they have accomplished. Applicants must be graduates in medicine, must have had thorough laboratory training, followed by good clinical experience in a general hospital, and must be desirous of continuing in the field of internal medicine. It is necessary that the person appointed be a scientific and experienced physician, possessed of extended training acquired in a medical position of responsibility. In addition, he must be of good address and antecedents, capable of commanding the respect of the community, and tactful, considerate and courteous in his dealings with patients and with the public. Persons who meet the requirements and desire this examination should at once apply for Form B. I. A. 2 to the United States Civil Service Commission, Washington, D. C.: the secretary of the Board of Examiners, postoffice, Boston, Mass.; Philadelphia, Pa.; Atlanta, Ga.; Cincinanti, Ohio; Chicago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Cal.; customhouse, New York, N. Y.; New Orleans, La.; Honolulu, Hawaii; old customhouse, St. Louis, Mo., or to the chairman of the Porto Rican Civil Service Commission, San Juan, P. R. No application will be accepted unless properly executed, including the medical certificate, and filed with the Commission at Washington prior to the hour of closing business on February 17, 1913. In applying for this examination the exact title as given at the head of this announcement should be used.

Personals.—As a testimonial of appreciation to Dr. Wm. S. Thayer, of Johns Hopkins University, for refusing to accept an offer made him recently by Harvard University, his friends in Baltimore are reported to have had his features reproduced in two large bronze portrait medallions and about 100 small ones. One of the large

medallions was presented to Mrs. Thayer and the other will go to Johns Hopkins University.

Dr. Alcee Fortier, professor of romance languages at Tulane, has been honored by the ministry of lands and forests of Canada, which has just started its organization, by having one of its new cantons named after him. In the naming of the new canton after the New Orleans scholar, the ministry gives this reason for the bestowal of the honor: "Fortier—In giving this name to this canton it is the intention to honor Mr. Alcee Fortier, profesor at Tulane, one of the intrepid defenders of the French language in Louisiana and a sympathetic friend of Canada." Dr. Alcee Fortier has also been appointed a member of the general committee of the Nineteenth International Congress of Americanists. The convention will be held in Washington in 1914

Dr. Robert C. Kemp has been appointed physician to the Deaf and Dumb Institute, Baton Rouge, La.

Dr. Creighton Wellman, head of the Department of Tropical Medicine and Hygiene at Tulane, has been elected president of the American Microscopical Society.

Dr. Charles Cassedy Bass, profesor of experimental medicine in the medical department at Tulane, has been elected a member of the American Socity of Bacteriologists. Professor Bass recently delivered a lecture before the society at the Rockefeller Institute in New York City, on the "Cultivation of the Plasmodia Malariæ."

Removals.—Dr. D. C. Iles, from Vinton, La., to Lake Charles, La.

Dr. Chas. D. Davis, from McCondy, Miss., to Houston, Miss.

Dr. Jesse W. Mobley, from Shreveport, La., to Vivian, La.

Dr. A. J. Reynolds, from DeRidder, La., to Marionville, La.

Dr. A. W. Clarkson, from Manchester, Tex., to Valliant, Okla.

Dr. Jaines T. Young, from Slaughter, La., to Erath, La.

Dr. Frank Romaguera, from 905 to 915 Royal Street, New Orleans.

Dr. Willard S. Cushman, from Baker, La., to Baton Rouge, La.

Married.—Dr. John Tolson O'Ferrall and Miss Gladys Moulton, at New Orleans, January 15, 1913.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

The Brain and Spinal Cord, by DR. EMIL VILLIGER. Third edition, translated by Dr. George A. Piersol. J. B. Lippincott Co., Philadelphia.

This brief manual of the morphology and architecture of the central nervous system is finding a cordial welcome both in Germany and America. Not only do its many excellent features commend it, but, being issued in its present form when most of the trustworthy treatments having its desirable brevity need revision, it also finds a demand.

In construction, the content is divided into three parts:

Part I deals solely with the morphology of the nervous system. After giving a very brief description of the development of the brain and spinal cord, it confines itself quite strictly to merest statements of the location and general appearance of the various structures without any reference to either their developmental or functional significance. Part II, entitled "The Fibre Tracts," is devoted, on the other hand, to the significance of the different neurone systems and the description of the origin, course, termination and function of the nerve pathways composing them. After a statement of the methods by which, during the past accumulation of our knowledge, the existence and nature of the various Fibre Tracts have been determined, this part gives a few pages dealing with the histogenesis of the nervous system before proceding to its subject. Part III consists of a series of 48 drawings of Weigert-stained sections of the Encephalon. These drawings most excellently represent the actual preparations. They are arranged consecutively, beginning at the genu of the corpus callosum and extending through the mesencephalon, the cerebellum and pons and include the entire medulla oblongata. Each drawing is fully described and comprehensively labelled. Withal, this part adds very greatly to the value of the book.

In addition to Part III, there are 183 illustrations distributed through the text of Parts I and II. A large proportion of these drawings are teaching diagrams and semi-diagramatic drawings and as such deserve especial mention. Instead of trying to illustrate the origin and course of several nerve paths in a single diagram, as is frequently done, thus rendering it so complex as to confound the student, simplicity is here accomplished by increasing the number of diagrams, each of which is devoted to the relations of a single tract or two, or three closely related tracts. For example, five separate similar diagrams are given in series to show the tracts of the rheinencephalon, the complex central connections of the organ of smell. The diagrams dealing with the medulla oblongata are excellently serviceable.

Frequently, after the description of a division or subdivision of the brain or after the discussion of a functionally associated system of nerve paths, either a tabulation or summary of the principal structures dealt with, named in their sequence, concludes the discussion. These frequent suggestions to summation and review should be of great value to the student.

In arrangement, the treatment begins with the cerebral hemispheres and thence works through diencephalon, mid-brain, cerebellum and pons, medulla, and concludes with the spinal cord. This order is in reverse of

what is usually considered pedagogically most efficient. It is thought best to begin with the spinal cord not only because the vast majority of sensations start from its domain and the responses are mediated by it, but also because the student may be led through its simpler structure into the greater complexities of the medulla and cerebrum. Further, some statements in the text dealing with the development and elaboration of the nrvous system show lack of recent familiarity with the subject, and the description of the neuroglia indicates only the little that was known of this tissue prior to 1897. The author's statements dealing with the strict anatomy of the brain and spinal cord and his descriptions of the nerve paths are wisely conservative and will suffer but little general criticism.

IRVING HARDESTY.

New Aspects of Diabetes, Pathology and Treatment, by PROFESSOR CARL VON NOORDEN. E. B. Treat & Co., New York, 1912.

Many of the readers of this journal arc familiar with von Noorden's little monograph on diabetes, which appeared about ten years ago and will welcome this new work which covers the same ground, and brings the subject up to datc. This new volume is characterized by the same clearness of description and direction as its predecessor and puts before the reader in about 150 pages practically all that one needs to know on this extremely important subject. To those who do not already know the earlier volume, this new one is most heartily commended and to the author's old friends it is sufficient to state that the book has appeared.

J. T. H.

A Synopsis of Medical Treatment, by GEORGE CHEEVER SHATTUCK. W. M. Leonard, Boston, 1912.

Good goods sometimes come in small packages is an old adage which is exemplified by this little booklet of sixty pages. While written primarily for medical students, it is so full of good sense and the discussions of the methods of treatment of some of the more important and common diseases are so correct and clear that it is well worth reading by other than undergraduates.

J. T. H.

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. Fourteeenth edition, enlarged, thoroughly revised and largely rewritten. Illustrated. Lea & Febiger, Philadelphia.

A book which has reached its fourteenth edition in twenty-two years needs no introduction in so far as its author is concerned.

Dr. Hare, as ever, stands for rational therapeutics, always an advocate for proper treatment, as he views it, never afraid of the therapeutic nihilist, or the medical iconoclast, who often write and advocate one thing, and practice another. There is never any doubt where Dr. Hare stands on the question of a proper use of drugs, and his book is, therefore, a reflection of personal views. His position on measures other than drugs is evident to his readers.

Where possible, the so-called scientific portion of the text has been linked to the clinical portion in such manner as to show their relationship. The patient's welfare is always kept in view, and every help is given the physician by a rational advocacy of remedical measures.

The book has met the advances of sound therapeutics, and is entitled to its high place among works of its kind.

STORCK.

Nutritional Physiology, by PERCY GOLDTHWAIT STILES. W. B. Saunders Company, Philadelphia and London, 1912.

At the outset the author disclaims any attempt at an exhaustive discussion of his subject, but, none the less, he has carried the field of his essay into a comprehensive consideration of nutrition in all its phases—correlating all the organs associated. Throughout the work, the definitions are clear and the subject so entertainingly presented that many old ideas seem new because of their delightful dress.

The more exact consideration of the text would lead us into the discussion of every chapter, which had better be left to the intending reader. Those sections on the Nature and Means of Digestion, the Hygiene of Nutrition, the Nervous System, and the Removal of the End Products of Metabolism are especially noteworthy. DYER.

Bacteriology and Protozoology. The Microbiological Causes of the Infectious Diseases, by HERBERT FOX, M. D. Lea & Febiger, Philadelphia and New York, 1912.

Intended as a simple guide to the knowledge of infectious diseases and their occasion, this little book presents many interesting matters in a direct way. All terms employed are clear and the matters discussed are brought down to the ordinary plane of intelligence. A list of the commoner pathological organisms is given, with liberal consideration of each. At the end of the book is a glossary of most of the technical terms employed. The text is well presented; the illustrations well selected, and in every particular the book goes far to satisfy its elementary intention. DYER.

A Practical Medical Dictionary, by THOMAS LATHROP STEDMAN, A. M., M. D. Wm. Wood & Co., New York, 1912.

It is only about a year ago we had occasion to review this excellent dictionary, if one can ever say he has *reviewed* a dictionary. This fact alone speaks eloquently of the success met by the work. Now it is offered thoroughly revised, corrected, with over two thousand terms added, and otherwise brought up to date.

The new edition should, and no doubt will, meet with as great favor on the part of practitioners and students. C. C.

Himself, by C. B. LOWRY, M. D., and R. J. LAMBERT, M. D. Forbes & Co., Chicago, 1912.

The authors' purpose to state in non-technical terms the things concerning the human body which every adult male should know has been well accomplished.

The book includes a simple description of the general anatomy of the male generative organs and their most common ailments, together with the issues of the day relating to the home and the marital and paternal relations.

Chastely written, though sufficiently comprehensive, the book is one of the best of its kind we have had occasion to read. The advice given is good in the main, although we are not prepared to approve the implied endorsement of the limitation of offspring in some instances. C. C.

A Manual of Chemistry for Students of Medicine, Pharmacy and Dentistry, by W. Simon, Ph. D., M. D., and Daniel Base, Ph. D. Tenth edition, thoroughly revised. Lea & Febiger, Philadelphia.

This deservedly popular book has reached its tenth edition, which fact in itself should be sufficient evidence that the work has merit. It is the constant endeavor of Dr. Simon and Dr. Base to present their subject in a clear, practical fashion. In previous reviews we have pointed out some of the good features of this book. The call for repeated editions enables the authors to keep their work abreast of modern knowledge on the subject. We consider this work one of the best in its line. Storck.

A Treatise on Pellagra, by Edward Jenner Wood, S. B., M. D. D. Appleton & Co., New York and London.

Such a work as this is welcome to all students of pellagra. Not only has the author contributed a valuable digest of the clinical manifestations of the disease, but he has also brought down to the present time the best historical summary yet printed in English. His task has covered the review of most of three centuries of all sorts of literature, derived from many countries in which the disease has occurred. The American phase of pellagra is exhaustively presented, and the individual work of his compatriots is given in a detail which reflects the greatest credit on his research and the particular appreciation of the author for the earnest effort of more modest contributors to a subject which is yet of prime importance in the economic and sociologic life of this country. It is especially gratifying to note the graceful tributes paid in the preface to those men who have initiated the study of pellagra in this country, and those who have excited a national interest in a growing problem.

In the body of the text all discussions are frank and broad, and, in each phase of the subject, full space is given to the varying opinions of those qualified in experience with this disease.

Among the number of insistent theories extant to-day, it is gratifying to note the emphatic opening of the subject of etiology by the statement: "The cause of pellagra is unknown, and, indeed, at the present time there is more uncertainty about the whole matter than ever before." Then follows a most complete review of the many arguments and theories related to the maize origin of pellagra; full space, too, is given to the antagonistic views of those who are not zeists. The stories of derived microörganisms and their relation are also detailed, as are the several theories of the insect-borne spread of pellagra. No conclusions are afforded, and the author very properly leaves the matter with the reader and with the premises which open the chapter.

It is in the description of the characteristics of the disease, the symptomatology as evidenced in the various organs, including the skin, intestinal tract, nervous system, that the general reader will be more interested, for the text is decidedly educational and replete with the discussion of many opinions and observations, set forth in a style which shows the maturity of digestion of a multitude of references.

The chapters on diagnosis and prognosis are also noteworthy, and the concluding divisions of the book, covering Prophylaxis and Treatment, carry a very full detail of past and present opinions.

Until the study of pellagra is carried to the point of knowledge of its cause, this book, for English-speaking students of pellagra, must stand as a guide and a text of current knowledge and practise. Dyer.

Publications Received.

D. APPLETON & CO., New York and London, 1912.

The Surgical Diseases of Children, by William Francis Campbell, A. B., M. D. and Le Grand Kerr, M. D.

P. BLAKISTON'S SON & CO., Philadelphia, 1912.

A Compend of Histology, by Henry Erdmann Radasch, M. Sc., M. D. Third edition, revised and enlarged.

J. B. LIPPINCOTT CO., Philadelphia and London, 1912.

International Clinics, Volume IV., twenty-second series, 1912.

C. V. MOSBY CO., St. Louis, 1912.

Skin Grafting, by Leonard Freeman, B. S., M. A., M. D.

MISCELLANEOUS.

Rocky Mountain Spotted Fever, by Wm. Colby Rucker. (Washington Government Printing Office, 1912.)

Notes on the Bionomics of Rats and Ground Squirrels, by Geo. W. McCoy. (Washington Government Printing Office, 1912.)

Eclectic Medical College Bulletin, Cincinnati, Ohio.

Catalog of Medical, Surgical and Hygienic Publications. (Rebman's Company, New York, 1912.)

Common Drinking Cups and Roller Towels, by J. W. Kerr and A. A. Moll. (Washington Government Printing Office, 1912.)

A Squirrel Destruction, by John D. Long. (Washington Government Printing Office, 1912.)

Whooping-Cough: Its Nature and Prevention, by W. C. Rucker. (Washington Government Printing Office, 1912.)

Sugar at a Glance, Charts and Data, prepared by Truman G. Palmer. (Washington, D. C., 1912.)

Collected Studies on Typhus. (Washington Government Printing Office, 1912.)

Public Health Reports, Nos. 50, 51, 52. (Washington Government Printing Office, 1912.)

Transactions of the American Medical Association. Volume 30, edited by Archibald MacLaren, M. D.

Transactions of the American Otological Society. Forty-fifth annual meeting, Vol. XII, Part III. Mercury Publishing Co., New Bedford, Mass., 1912.)

Report of the Department of Sanitation of the Isthmian Canal Commission for the Month of October, 1912.

Smallpox in the United States, by John W. Trask. (Washington Government Printing Office, 1912.)

Trachoma in Kentucky, by John McMullen. (Washington Government Printing Office, 1912.)

Open-Air Schools for the Prevention and Treatment of Tuberculosis Among Children, by B. S. Warren. (Washington Government Printing Office, 1912.)

The Basic Law of Cure, Diagrammed and Explained, by Edgar G. Bradford.

List of Drugs and Preparations that will be Dispensed at the Sickles Fund Commission, at its Dispensary at the Charity Hospital, New Orleans, La.

Reprints.

Opinion of Dr. Robert Koch as to the Cause of Black-Water Fever, published by Albert Woldert.

Immigration and Labor, by Isaac A. Homwich, Ph. D.

Is Immigration a Menace? by Syrus L. Sulzberger.

A Brief Visit to Some of the Hospitals of Italy, by Samuel Walter Kelly, M. D., LL.D.

Surgical Mistakes in Infancy and Childhood, by Samuel Walter Kelly, M. D., LL.D.

The Microscopic Findings in Twenty-four Cases of Malarial Hemoglobinuria, by Albert Woldert, M. D.

Experience with Vanadium in Tuberculosis, by William Franklin Harpel, A. M., M. D.

Need of Better Vital Statistics; the Influence of Vital Statistics on Longevity. (Sixth Annual Meeting of Life Insurance Presidents, New York, December 5, 1912.)

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
FOR DECEMBER, 1912.

CAUSE.	White	Colored	Total
Typhoid Fever	5	3	8
Intermittent Fever (Malarial Cachexia)	------	------	------
Smallpox	------	------	------
Measles	------	------	------
Scarlet Fever	------	------	------
Whooping Cough	------	1	1
Diphtheria and Croup	11	1	12
Influenza	4	11	15
Cholera Nostras	------	------	------
Pyemia and Septicemia	------	1	1
Tuberculosis	30	44	74
Cancer	17	12	29
Rheumatism and Gout	1	1	2
Diabetes	1	1	2
Alcoholism	3	-----	3
Encephalitis and Meningitis	8	3	11
Locomotor Ataxia	3	------	3
Congestion, Hemorrhage and Softening of Brain	23	11	34
Paralysis	5	2	7
Convulsions of Infancy	------	------	------
Other Diseases of Infancy	------	1	1
Tetanus	3	3	6
Other Nervous Diseases	2	2	4
Heart Diseases	48	34	82
Bronchitis	3	5	8
Pneumonia and Broncho Pneumonia	20	30	50
Other Respiratory Diseases	3	3	6
Ulcer of Stomach	1	------	1
Other Diseases of the Stomach	2	2	4
Diarrhea, Dysentery and Enteritis	23	9	32
Hernia, Intestinal Obstruction	2	1	3
Cirrhosis of Liver	15	3	18
Other Diseases of the Liver	3	2	5
Simple Peritonitis	------	------	------
Appendicitis	4	2	6
Bright's Disease	36	26	62
Other Genito-Urinary Diseases	6	5	11
Puerperal Diseases	5	5	10
Senile Debility	8	4	12
Suicide	2	------	2
Injuries	22	17	39
All Other Causes	29	19	48
TOVAL	348	264	612

Still-born Children—White, 24; colored, 20; Total, 44.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 15.35; colored, 31.36; Total, 19.69.

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

Mean atmospheric pressure 30.11
Mean temperature 55.4
Total precipitation ..... 11.21 inches

New Orleans Medical and Surgical Journal.

VOL. LXV. MARCH, 1913 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 one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Abdominal Cesarean Section in Eclampsia and Central Placenta Previa; With Reports of Cases So Treated*

By ESPY MILO WILLIAMS, M. D., Patterson, La.

REGARDING ECLAMPSIA: It is not my intention to discuss the treatment of eclampsia. Its cause is not definitely known, and consequently its treatment is, to a large extent, empirical, varying from time to time with the variations in the theories regarding causation, but resolving itself into three phases: elimination, sedation, and induced labor. Concerning elimination and sedation, the general trend of methods is similar with all practitioners, varying only in matters of detail. The necessity for emptying the uterus is still a question which is not definitely settled as yet, there being still some who advocate and practice a waiting line of treatment until forced to this more radical measure. There is no doubt, however, but that tentative treatment is rapidly falling into disrepute, and the majority of practitioners now evacuate the uterus as soon as the first convulsion occurs, and even in the pre-eclamptic stage if possible. It is with the assumption that the first indication

* Read before the Louisiana State Medical Society, Thirty-third Annual Meeting, New Orleans, April 23-25, 1912.

in the treatment of eclampsia is accepted as being that of prompt emptying of the uterus that these cases are reported, being examples of what has appealed to me as the quickest, easiest and safest method of accomplishing that purpose in certain cases.

Case 1. Pearl Eugene, colored, aged 19, primipara. Pregnancy had progressed uneventfully until the end of the eighth month, when eclampsia occurred. When seen by Dr. W. D. Roussel she had already had six very violent convulsions, and was completely comatose. Labor had not commenced. The child was in a vertex position, and heart-sounds normal. The pelvis was normal in size, the cervix was not effaced, and the external os admitted only the index finger. The urine contained albumin in large quantities, and on admission to the hospital the pulse was 130 and the temperature, by rectum, was 101 4/5° Fahrenheit. There was slight edema at the base of both lungs, and a general anascara. Prior to operation she was given hypodermatically tincture of veratrum viride, 10 minims, and morphin sulphate, one-half grain, and ergotole, 20 minims. Ether was administered, and the child delivered by abdominal section. The placenta lay directly in the line of the incision in the uterus and was cut through. Delivery was rapidly accomplished, the placenta and membranes removed, and, the uterus contracting quickly and thoroughly, it was closed and allowed to remain. The entire operation occupied twenty-five minutes, from the making of the incision to the dressing of the wound. The patient took only a very small amount of ether, the shock was apparently but slight, and she was returned to bed in better condition than when she went on the table. Following the operation there was only very slight drainage per vaginam, and six hours after the uterus was dilated with blood, necessitating dilatation of the cervix. It was found then that drainage had been interfered with by a small piece of membrane which covered the os internum and had been overlooked at operation. The only convulsion which the patient had following the operation was at this time, and when under ether, which was given before dilatation. This convulsion was very slight. The puerperium was otherwise uneventful, and she went home on the twenty-first day. The child was resuscitated with a little difficulty at operation. It developed a pemphigoid, syphilitic eruption, when eight days old, which subsided under appropriate treatment, and lived to the age of three months, dying of an acute entero-colitis.

Case 2. Olive Gant, primipara, colored, aged 23 years. Had first convulsion when eight and one-half months pregnant. She was immediately given hypodermatically tincture of veratrum viride, 7 minims, and morphin sulphate, one-quarter of a grain, and transferred to the hospital. There was slight pulmonary edema. Temperature was 102°, pulse 118, and coma was complete. The child was in breech position; fetal heart sounds regular. The pelvis was normal in size, labor had not commenced, and the cervix was not effaced. The urine was "loaded" with albumin. Delivery was accomplished by abdominal section, under ether anesthesia, immediately preceded by ergotole, 20 minims, hypodermatically given. No difficulty was encountered except in the removal of the placenta, which was tightly adherent. Operation was completed in a little under thirty minutes. The uterus, contracting well, was allowed to remain. The puerperium was uneventful, except for a rather profuse hemorrhage on the eighth day. This was caused by the retention of a small particle of placenta, which was removed with a blunt curette, after which the bleeding stopped. There were no further convulsions after delivery. She was discharged on the eighteenth day. As to the child, it was crying almost upon birth, hearty, and is still living. The mother, is at time of present writing, perfectly well.

The case of placenta previa which I wish to report is as follows:

Mrs. Henry B., white, aged 27 years, multipara with three children.

Previous pregnancies and labor normal. The patient was seen by Dr. Roussel, in consultation with Dr. C. C. DeGravelles, of Morgan City, La. Cesarean section was advised, and she was brought to Patterson for that purpose. She was a small, slight woman, and in a well advanced second stage of pulmonary tuberculosis. She was seven and one-half months pregnant at this time. Since the third month of pregnancy there had been hemorrhages, none of them profuse, at varying intervals. The hemoglobin was 70 per cent, and red cells 3,800,000. Urine was normal. Vaginal examination showed the presence of a centrally located placenta. The cervix was not obliterated, and the os was soft and patulous, as usual in these cases. The fetus was in a vertex position, movements vigorous, and heart-sounds clearly audible and regular. There had been recent frequent small hemorrhages, and it was considered best not to allow the pregnancy to advance farther.

Abdominal Cesarean section was made, and a living child delivered. After emptying the uterus it was found that the body of the organ contracted nicely, but the lower segment, over which the placenta had been attached, refused to contract, even to the slightest extent. After what was deemed a sufficiently long effort to obtain contraction, unavailingly, the uterus was amputated at the level of the internal os. The stump was treated intra-abdominally. The time of operation was forty-five minutes. The patient was considerably shocked, and returned to bed with a barely perceptible radial pulse. Salt solution was immediately begun by proctoclysis, with frequent administrations of small amounts of adrenalin and camphor hypodermatically, and in a short time she was awake and out of danger. Proctoclysis was continued for thirty-six hours, the patient having absorbed six quarts by this time, and being in excellent condition. From then on the recovery was uneventful, and she was discharged on the fourteenth day. The child lived for three days, dying at that time from asthenia.

Some points in technic which I would like to mention are: (1) The high incision; (2) the uterus is partially delivered from the abdomen, just sufficiently to give access to the base of the broad ligaments, and rubber-covered stomach clamps are slipped over the base of each broad ligament. These are, of course, not closed, but are in readiness for closure at any time should hemorrhage necessitate it. (3) In closing the wound in the uterus four layers of sutures are used. The first is of doubled No. 2 plain gut, and takes up the muscle down to, but not through, the mucous membrane. No knot is tied in the end of this, but it is brought directly back, taking up muscle alone, in the second layer. The third layer is of linen, and takes muscle and peritoneum; and the fourth, of linen, is a Lembert type, and apposes the peritoneal coats. Great care is taken to avoid including any of the mucous lining in the first layer of sutures. It is possible that some of the very few cases of ruptured scar in subsequent pregnancies were due to such a fault, it being impossible for union to take place between the cut muscle and an inverted mucosa, and a point of least resistance being thus established. (4) No effort is made to dilate the cervix from above at operation, to provides for subsequent drainage, since this must materially increase

the chances for infection. No drain is inserted, for the same reason. I can see no necessity for any such procedure. The os need not be especially large to permit of the thorough drainage of postpartum uterine contents, and if there be any retention, as was the case in one of these cases, it can be relieved without trouble or danger. I do not believe that such retention could cause a breaking open of the uterine wound, if proper methods of closure are used in the first place. The line of least resistance will lead towards the os. (5) If ergot be given just before opening the abdomen it will facilitate uterine contraction postpartum.

A word with regard to the rapidity of operating. I do not see why it should generally be considered necessary to proceed with extreme haste. Without prejudicing the welfare of the mother or child, the operation is one which can, and should, be planned and executed with as much deliberation, within the bounds of reason, as is any operation within the abdomen.

The first indication in any case of eclampsia is that of emptying the uterus. It is necessary that this be done as quickly as possible; every additional convulsion indicates the absorption of a larger quantity of toxin by the patient, and a consequently increased danger of ultimate fatality. In considering the method by which delivery shall be accomplished, we should estimate its rapidity, certainty, difficulty, mortality and morbidity to the mother, mortality and morbidity to the child. In manual dilatation of the cervix time is lost, a larger quantity of anesthetic is absorbed, shock is continuous, and frequently complete dilatation cannot be accomplished, and must be left subsequently to nature after podalic version. Instrumental dilatation by Bossi's and other instruments is out of the question. Vaginal Cesarean section opens the cervix quickly, but the child must subsequently be either turned or delivered with forceps. If there is slight pelvic contraction, and the life of the child be rightly considered, then, in addition to vaginal section, a pubiotomy or symphyseotomy must be done, which is additionally prejudicial to the mother.

In the classical Cesarean section the danger to the mother is far less than in high forceps or section. There is greater possibility of obtaining and maintaining asepsis, and the morbidity is consequently less. To the child there is less danger in delivery by this method than lies in normal labor. I believe, therefore, that the abdominal route is the ideal one in all cases in which con-

vulsions begin shortly before term, with viable child, with cervix not obliterated, labor not begun, and no previous attempts at delivery made. Especially so in primiparous women, as the capacity of the pelvis has not been established in previous labors (the only real test as to its measurements), and the outlook for the child is, therefore, additionally uncertain. In multiparous women who go into labor at the time that the convulsions begin, and in whom the cervix is effaced and the os easily dilatable, the usual methods are to be advocated.

In placenta previa the principal dangers to the mother which have to be considered are hemorrhage before and after labor, and infection, the latter being more predisposed to than ordinarily because of the fact that, due to alarming hemorrhage, haste, with its concomitant oversights, is likely to be the rule in management. The danger of postpartum hemorrhage is greater than in normal placental insertion, for the reason that the lower segment of the uterus is not always possessed of sufficient contractile power to overcome the bleeding. Delivery by Cesarean section here is advantageous, because, first, it is more rapidly done and is attended with less shock and the giving of less anesthetic; second, the opportunities for asepsis are greater; third, hemorrhage can be as well controlled, and perhaps better so, since the uterus may be removed, if necessary, after a reasonable attempt at hemostasis has failed. The majority of cases of placenta previa, of course, will not be amenable to this method of treatment, for, as a rule, they are for the first time seen in an alarming condition, and the life of the mother is the only consideration which may claim one's attention. The following is my belief as to the management of placenta previa (central or complete) in general:

That the uterus should be emptied, without consideration of the stage of pregnancy, as soon as the condition is recognized, except when both husband and wife, in face of a clear knowledge of the risk involved, insist on temporizing until the period of viability is reached. In this event, the case should be closely observed and allowed to go on as far as the eighth month, if possible. At this time, since the patient has been willing to take the risk for the sake of the child, such risk to the child must then assume equal proportions to that of the mother; and for this reason the abdominal Cesarean section should be done. The patient must also, of course, permit the removal of the uterus should this be necessary.

Some Points in the Technic of Complete Hysterectomy.*

By P. B. SALATICH, M. D., New Orleans.

The usual median incision through the skin to the fascia. The fascia are opened a little to the side of the median line, the fibers of the rectus separated, and the peritoneum opened. The intestines are packed off with sponges.

The next step depends upon whether adhesions are present, or if one or both ovaries are to be saved. If there are adhesions to the intestines, the finger keeps close to the part to be removed. The back-handed method facilitates this procedure materially. The adhesions are free, the bowels are packed off with sponges, and the infundibuliform ligament containing the ovarian vessels are clamped or ligated.

The broad ligaments are cut to the round ligaments. The round ligaments are clamped and cut. A small incision is then made in the fold of peritoneum, continuous above the bladder, the index finger or Mayo scissors is passed through this opening and dissect the peritoneum upwards, away from the uterus. This free peritoneum is cut transversely. The round ligaments are good guides in prolonging the incision laterally. Often it is possible to strip the bladder, with gauze away from the uterus, without having to cut the peritoneum; this is especially the case in fibroids, where the bladder is stretched. The cuts in the broad ligament are prolonged to the uterine arteries. The blue color of the veins will generally show when we reach these vessels. It is not always possible to feel the pulsations of the arteries. The vessels are clamped close to the uterus and cut. The uterus is pulled forward and a posterior cuff made; this must often be made with Mayo scissors, as the peritoneum does not peel away easily.

We are now down to the level of the internal os. The method of controlling the blood supply, below the internal os, is important. In this region there is a rich blood supply. The uterus sends off a large branch, the cervical, to anastomose, with branches of the vaginal arteries; these are often the source of very troublesome bleeding. This blood supply is controlled by placing a clamp on each side of the cervix to the vagina, before cutting or stripping. After reaching the vagina it is safe to strip, as no great hemorrhage takes place. This greatly facilitates and hastens the

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removal of the cervix, which, according to modern writers, should be done. The vagina is ready to be cut; two rightangle clamps are placed on the vagina, or, if none are present, the vagina is caught on either side with Ochsner clamps and cut across. Before the vagina is cut, a folded abdominal sponge should be packed at the bottom of the cul-de-sac so as to catch any fluid from the vagina, and, after the vagina is cut, one or more small sponges are packed into it.

The uterus removed, we suture the vagina. If no infected material is present, this can be closed completely, the ends of the sutures remaining long, so as to act as guides.

The vessels in the clamps are ligated. The round ligaments are ligated and, with the same ligature, are tacked to the ends of the vagina. This forms a support for the bladder and prevents sagging of the vagina, and the patient is generally able to void urine after eight to ten hours following the operation. The toilet of the peritoneum is next carefully made. To insure against adhesions, all lines of union and raw surfaces are thoroughly smeared with sterile vaselin.

If extensive raw surfaces are present, pouring a half pint of sterile olive oil will ward off trouble from adhesions.

The operation completed, the abdominal incision is closed with tier sutures.

Davison's Operation for Undescended Testicle.*

By HERMANN B. GESSNER, M. D., New Orleans.

At the last meeting of this Society I read a paper on the Bevan operation for cryptorchidism, published in the April, 1912, number of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, concluding with the statement that Davison's operation had come to my attention, and which presented some plausible claims.

Some months later I had the opportunity of applying this technic on the living patient, after first experimenting with it on the cadaver in the Miles Laboratory of Operative Surgery in the Tulane University of Louisiana.

The patient, J. D. C., a negro laborer, aged 28 years, was admitted to the Charity Hospital October 24, 1911, and discharged

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December 16. He suffered from a tuberculous inguinal adenitis on the left side, an undescended testis, with inguinal hernia, on the right. Operation for both conditions was done October 25—an inguinal adenectomy on the left, the Davison operation, with herniotomy, on the right. The technic of Davison is most simply described by saying that, in the main, it consists in dividing the epigastric vessels between ligatures, dividing the double sheet of fascia—above and below the vessels—between the transversalis fascia and Poupart's ligament, then swinging in the structures of the cord to the inner angle of the wound and suturing as in the Ferguson operation for hernia.

To proceed with a more leisurely description, let us first say that an incision is made as for inguinal hernia through skin and fascia; next, the external oblique aponeurosis is divided and the inguinal canal exposed.

The testis and cord are freed from their fascial connections up to the internal ring; then the peritoneal process, if patulous, is identified and divided above the testis, the distal portion closed by suture to make a new tunica vaginalis, the proximal treated as an ordinary hernial sac.

The special feature of the operation—the bringing down of the testis to lie in a pocket burrowed in the scrotal tissues—now remains to be accomplished. The epigastric vessels are sought and divided between two ligatures. The two sheets of fascia between which they lie are now divided from the internal ring to the spine of the pubes. These sheets are described by Dr. Irving Hardesty, professor of anatomy in Tulane University, as coming, one from the fascia of the external iliac (Abernathy's fascia), the other from the transversalis fascia.

There is now left a clear space between the transversalis fascia above (surrounding the peritoneal bag) and Poupart's ligament below. Here the component structures of the cord, vas on the one hand, spermatic vessels on the other, are freed from their fascial relations and brought in to the inner corner of the wound. The vas is not at fault in cryptorchidism, being usually of ample length to permit the descent. The vessels, now relieved by the necessity of reaching the external ring by a circuitous route, including a double curve, are at this stage easily long enough to permit the testis to be drawn into the scrotal pouch. Here it is fixed by a suture involving scrotum and tunica vaginalis. The conjoined

tendon is next sutured to Poupart's ligament, leaving just enough room at the inner angle for the escape of the cord, and the external oblique aponeurosis sutured, preferably by imbrication, likewise with provision for the cord. Skin and fascia are sutured to complete the closure.

The result of the operation in the patient referred to was entirely satisfactory.

I have an oral communication from my colleague, Dr. Urban Maes, to the effect that he also has applied the Davison technic to a case, with excellent results.

In conclusion, I wish to call your attention to the special feature of the operation, viz: that, by making a short cut for the spermatic structure, it obviates the necessity in certain cases of dividing all of the cord but the vas. This last procedure, while it leaves a testicle in the scrotum, gives the patient an organ that, judging by experiments on animals, is likely to degenerate and prove useless for generative purposes, though its transplantation will lessen the danger of malignancy and be helpful in a psychic way.

Discussion on Dr. Gessner's Paper.

Dr. A. Nelken, New Orleans: I think we are indebted to Dr. Gessner for bringing before us a new procedure for the treatment of this condition. Those who have had to do the Bevan operation know that we do not feel satisfied in dividing the vessels of the cord, because it requires a considerable degree of enthusiasm to believe that the remaining structures are able to carry on the circulation of the testicle. We know that, commonly, the testicle may, following this operation, look normal, and still, as Dr. Gessner has suggested, it may be a functionally useless organ. As the operation for cryptorchidism is commonly performed in the young man, it is essential to preserve the testicle, if possible, and a man with two testicles is far more secure than the man who has only one. An important step in this operation, which has been well brought out in the Bevan operation, is in retaining the testicle in the scrotum. The sutures can be left long and strapped to the thigh in such a way as to prevent retraction of the testicle.

Essential Hematuria.*

By A. NELKEN, M. D., New Orleans.

Only recently, a great deal of attention was paid to the subjective symptoms of the patient and to the gross and microscopical appearance of the urine in an effort to diagnose the source and cause of blood in the urine. The progress made in genito-urinary surgery in recent years, the discovery of the X-ray, and, especially, the perfection of the cystoscope have all combined to bring about a remarkable advance in the diagnosis of urological diseases, making it as nearly exact as the science of medicine can reasonably hope to be.

As a result, the pathological causes back of so-called "essential hematuria" are better understood, and we find this diagnosis being made with much less frequency than was the case a decade ago.

"Essential Hematuria" is defined by Pilcher as "bleeding from a kidney, arising suddenly, without warning, without discoverable cause, and devoid of symptoms other than the presence of blood in the urine."

Bleeding from a "healthy" kidney has long been recognized. Rayer[1], in his book published in 1837, devotes a chapter to the discussion of hemorrhage from a sound kidney. One of the earliest explanations of this condition was that it was due to a vaso-motor disturbance. Socoloff[2], in 1874, reported a case in which Botkin referred the hematuria to a local brain affection and a secondary disturbance of the vaso-motors in the kidney. Legeu[3], in 1891, again advanced the idea of an angio-neurotic hematuria. Klemperer[4] (1897) defended this theory, holding that there is a disturbance of the vaso-motors in the kidney—a paralysis of the vaso-constrictors, causing dilatation of the blood vessels and resulting diapadesis of red blood cells. He treated several cases with good results by rest in bed and suggestion. Schede[5], while sceptical, granted that a small number of cases were angio-neurotic in origin.

Senator[6] first described the so-called "idiopathic hematuria" as a hemophilia. One of his cases was operated upon subsequently by Sonnenburg, who removed the kidney which appeared macroscopically healthy, but in which Israel demonstrated localized areas of interstitial nephritis.

Guisy[7] reports three cases of what he terms "hysteric hematuria" in whom the attacks seemed to be brought on by nervousness.

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Guthrie[8] reported twelve cases of idiopathic hematuria in the closely related members of a single family.

However, as the experience with these types of cases has increased, surgeons have discarded these views as to the etiology of "idiopathic" renal hemorrhage. In 1898, M. L. Harris[9] gathered from the literature 16 cases of "essential hematuria," adding two of his own. In 1907, Steinthal[10] said there had been hardly four exactly observed cases reported. In 1910, Motz[11], in a thorough review of the whole subject, maintained that there were only two unexplained cases on record, one a case of Klemperer and the other of Schede, and that even these two were doubtful.

In their excellent paper on the subject of hematurias, read before the French Urological Society in 1899, Malherbe and Legeu[12] said: "All renal hematurias are symptomatic and arise either from a general cause, toxic or infectious, or they arise from some renal lesion."

I believe that I can say that this view is generally accepted today. A diagnosis of "essential hematuria" means only that the cause of the renal bleeding has not been diagnosed. An interesting case, showing with what circumspection we must accept the pathologists' report that the kidney is healthy, is the often quoted case of Nicolich[13]. He removed a kidney for prolonged hematuria, endangering life. In Vienna, the kidney was pronounced healthy by a competent pathologist. In Paris, Albarran and Motz found a few discrete lesions of glomerulo-nephritis. In a case reported by Albarran, a lesion of chronic interstitial nephritis, the size of a millet seed was found. Albarran points out that this lesion might have been easily overlooked and the kidney reported as being healthy.

A complete examination of the kidney is only possible after nephrectomy. And even if competent examination shows the kidney to be healthy, we have still to rule out the ureter as the location of the bleeding. Experience demonstrated that hemorrhage from hollow organs will commonly cease if the viscus be put at rest, as evidence the usual stopping of bladder bleeding after suprapubic drainage. Nephrectomy has the result of stopping the peristaltic movement of the ureter, and it is not difficult to believe that a lesion in that tube will not only stop bleeding, but may even heal after removal of the kidney. Chute[14] suggests that the ureter be excluded as the source of the bleeding by collecting urine at

different levels along its course with the ureter catheter. This must be of doubtful diagnostic value, since we can not be sure that the blood may not come from some distance below the tip of the catheter. I have seen cases of traumatic bleeding from the ureter where the blood has shown with the tip of the catheter in the renal pelvis, although I was satisfied that the site of the trauma was near the ostium of the ureter.

Hemorrhage from the kidney, due to calculus, to new growths, to tubercular disease, and the hematuria of tropical countries due to infection of the kidney with the Bilharzia Hematobia are well recognized. Also well understood are the hematurias due to systemic or toxic causes. That blood in the urine is sometimes a symptom of acute nephritis was known by Bright.

Numerous other causes have been given for bleeding from a single kidney.

A. T. Cabot[15] reported a case where severe hemorrhage accompanied movable kidney. The same reason has been assigned by Picque and Reblaud[16].

Thickening of the capsule and peri-nephritic bands of adhesions were found in cases reported by Rovsing[17] and, more recently, by Schwyzer[18]. It is of interest, in this connection, to note that adherent bands about the kidney have several times been mentioned as being found by operators who attributed the bleeding to other causes.

Albarran[19], Davidsohn[20], and others have reported cases where unexplained renal bleeding proved to be due to minute foci of tuberculosis.

A case in which was found a small concretion at the tip of a papilla is reported by Abbe[21]. Frisch[22] collected 13 cases of hematuria complicating appendicitis. Adhesion of the appendix to the ureter was responsible in six cases. In three, the inflammatory process had involved the kidney. In two, there was a toxic nephritis. In one case, blood in the urine was coincident with each recurring attack of appendicitis, no cause being found. Other cases of hematuria complicating appendicitis are reported by Seelig[23] and by Hunner[24]. Renal varix or angioma of the renal papilla as a cause of painless hematuria was first described by Fenwick of London. Fenwick[25] reported three cases, two cured by nephrotomy and one by nephrectomy. Other cases have been reported by MacGowan[26] and by Whitney and Cabot[27]. The subject of renal varix

has been recently reviewed interestingly by Pilcher[28], who reports three cases. How cure follows nephrotomy for hematuria due to varix is explained by Broedel's[29] description of the peculiar distribution of the venous radicles at the base of the renal calices. An incision through the posterior row of the calices avoids all the arteries, but severs six of the connecting veins. Venous circulation is carried on by the anastomosis at the upper and lower pole of the kidney. These small angioma collapse when doing a nephrotomy through Broedel's line, and are very likely to be overlooked in the macroscopical examination of the kidney, and it is not difficult to understand that such kidneys may be reported as being healthy if this point is not borne in mind.

Without underestimating the frequency of the several causes enumerated above, surgeons have come to recognize, however, that the frequent etiological factor responsible for so-called "idiopathic" or "essential" hematuria is chronic nephritis. This fact, which had been often hinted at by many clinicians since Rayer, was first definitely stated by Albarran[30] in 1898. He said that we often observe copious bleeding in chronic nephritis which is mistaken for hemorrhage due to stone, tuberculosis, or cancer of the kidney. This statement was further emphasized by Pousson[31] in a paper read before the Surgical Society of Paris a few weeks later. In the discussion that followed the reading of Pousson's paper, other cases were reported by Poirier, Potherat and Nimier.

The diagnosis of unilateral nephritis has been made by Edebohls[32], DeKeersmaecker[33], and others. Rovsing[34] has, likewise, maintained the existence of a unilateral nephritis, claiming it to be infectious in origin, and his position has been supported by the work of Castaigne and Rathery[35]. The diagnosis of unilateral nephritis is, however, difficult to prove in those cases that do not come to autopcy. Nannyn first called attention to the now well-recognized fact that nephritis can, and not infrequently does, exist without albumen and casts in the urine. This opinion was further elaborated by DeKeersmaecker[33] in 1907. Tedenat[36] has reported cases where hemorrhage from the kidney long antedated every other evidence of urinary trouble. Many other cases have been reported where hemorrhage was the only evidence ever found of the presence of a chronic nephritis. We know that nephritis may be bilateral and the hematuria unilateral (Albarran[30], Laurent[37]). So the finding of nephritis in a kidney removed for

hematuria and subsequent negative findings in the urine from the remaining kidney is insufficient evidence upon which to base the opinion that this kidney is not, too, the seat of a nephritis. The following two cases which have come under my observation are of interest in this connection:

Case I. This patient was seen in consultation with Dr. Kohlmann. White male, aged 60. Applied for treatment in November, 1908. Negative history. Had had typhoid, malaria and several attacks of grippe. He had first noticed blood in his urine thirty-three years previously, when he was 27 years of age. Bleeding came on without cause and without symptoms, and lasted a few weeks. Blood in the urine reappeared twenty-three years later, lasting fifteen days. Following this last attack his urine remained clear for ten years. Bleeding recurred three months prior to his applying for treatment, and, save for a few days, had been constant since. Patient was a well-nourished man, muscular for his age, and, with the exception of a slight pallor, seemed in good physical condition. Examination of his urine showed considerable blood and albumen, the latter not out of proportion to the blood present; no tubercle; no pus. X-ray pictures of both kidneys, with their ureters, were negative. Cystoscopy was attempted, but was unsatisfactory because of the rapid clouding of the field by the profuse bleeding. The prostatic shadow was normal. The urine was segregated without difficulty, and blood was seen to be coming from the right side. Urine from the left side was clear and, microscopically, negative.

Nephrectomy was done by Dr. Kohlmann on December 12, 1908. Ether was administered. The day following operation, urine showed a few hyalin and granular casts; no albumin; no blood. On the second day following operation, urine was negative, and showed nothing abnormal up to the time patient passed from under observation. The kidney appeared normal, macroscopically, but the pathologist, Dr. Pothier, reported a chronic interstitial nephritis. An interesting point was his addition to the report that there was dilatation of the tubules, with desquamation, suggesting a hydro-nephrotic kidney. No evidence was noticed at the time of operation, either in the pelvis or the ureter.

Case II was seen in consultation with Dr. Gessner. Patient was a white male, aged 34. Nothing of interest in his family history. He had never been ill previous to his present trouble, save with the measles when a child. One year previous he had "strained his back" while lifting some heavy timber. Since that time he had been more or less constantly suffering with discomfort, at times amounting to actual pain, in the right lumbar region, and during this entire period his urine had contained blood. There was no bladder disturbance. Cystoscopy showed a normal bladder. Clear urine could be seen coming from the left ureter; that from the right was distinctly "smoky." Both ureters were catheterized, the catheter being introduced into the right renal pelvis without meeting obstruction. Capacity of the right pelvis was 6 c. c. Both kidneys were functioning normally. Urine from the left side was clear, and, microscopically, normal. Urine from the right kidney showed blood and a trace of albumin. Tubercle bacilli were not found, and a culture on plain agar remained sterile. The X-ray picture of the right kidney and ureter was negative. Patient was operated upon by Dr. Gessner on November 3, 1911. Kidney was found to be large, but seemed to be healthy. After considering all the circumstances connected with the case we decided that a nephrectomy was the best procedure, and the kidney was removed. We are prepared to discount criticism by acknowledging that more mature deliberation has made us feel that a less radical operation than the removal of the kidney would have shown better surgical judgment. We

would say, however, that the patient has been entirely well since the operation, and seems no worse off for the loss of his kidney. For a few days following the operation his urine showed blood cells, but it soon cleared, and has shown no abnormality since. The removed kidney, on section, seemed to be healthy. The specimen was sent to Dr. Duval for histological examination, and he reported as follows: Kidney weight, 180 grams. Organ enlarged, succulent and somewhat edematous. On section the cortex is in places twice its normal depth. Color pale red and markings poorly defined. Microscopic sections show the epithelium of the convoluted tubules to be swollen, granular, and to contain fat globules. Many of the cells are poorly stained, and the nuclii are lost (tubular nephritis). There is no increase of the connective tissue supporting structure, nor foci of lymphoid cell infiltration. The most striking change is seen in the Malphigian tufts. Practically every glomeruli contains in the capsular space varying amounts of a pink staining homogeneous material (hyalin in character). Many of the tufts have atrophied in consequence of pressure of this material. Others are compressed. Blood vessels are negative. Diagnosis: Tubular and glomerular nephritis.

The proper line of treatment in these cases of "essential hematuria" is an interesting problem. At times, bleeding will stop for a long time without treatment, as evidence the first case I reported, where hematuria ceased, the first time for 33 years and the second time for 10 years, although the patient did nothing more than to remain quiet during the time that blood showed in his urine. Some few years ago, I saw a negro girl who had been bleeding profusely for two months from her left kidney. She passed from under observation, to return two years later with an acute gonorrhea, and to say that bleeding had stopped shortly after I had last seen her, and had not recurred.

Potherat (Fowler)[38] has reported a case of five years' standing, in which the bleeding ceased after a simple catheterization of the ureter.

Irrigation of the renal pelvis with adrenalin chloride solution as advocated by Young, or with nitrate of silver solution has proven efficient in a fair percentage of cases, although it not infrequently fails. The following cases are of interest in this connection: The first was a female, aged 30, who gave a history of having been passing bloody urine for 20 days previous. For a few days prior to the appearance of the blood, she had had a slight pain in her left side, which ceased when her urine became bloody. Cystoscopy showed blood coming from the left ureter in such volume as to rapidly cloud the field. Catheters were introduced into both ureters. Urine from the right side was normal. Urine from the left side was very bloody. Catheter was pushed up into the left pelvis without meeting obstruction, and the pelvis irrigated with a 1-10000 solution of adrenalin chloride. Bleeding ceased imme-

diately after treatment. Five days later, urine was macroscopically clear, showing, microscopically, a few red blood cells and a faint trace of albumen. A few days later, a radiograph of the left pelvis distended with collargol was taken by Dr. Samuel, and the pelvis and ureter found to be normal. Urine has remained clear, now four months since treatment.

However, not always will bleeding respond so promptly to such simple measures. In a case of persistent nephritic hematuria seen recently in my service at the Charity Hospital, catheterization of the ureters showed blood to be coming equally from both kidneys. Urine showed a large quantity of albumen and many casts. Both renal pelvis were irrigated several times, first with adrenalin solution, and, later, with nitrate of silver solution, without result. Decapsulation was advised, but the patient refused any operative interference, and left the hospital.

The following case, which also failed to respond to renal lavage, is interesting from a diagnostic standpoint:

Patient, a negro laborer, aged 33, applied at the out-clinic of the Touro, with the following history: Six months previously he noticed that his urine was blood-colored. He had had no pain, but blood had been constantly present since. He had never been sick, save for an attack of gonorrhea five years before. His gross urine was highly bloody, but showed no pus. Examination for tubercle bacilli was negative. Culture on plain agar remained sterile. Palpation of the abdomen gave no information. Cystoscopy showed blood to be coming from the left ureter. Bladder normal. Both ureters were catheterized. Urine from the right kidney was negative; that from the left showed considerable blood; no pus, no tube casts, and the examination for the tubercle bacillus was again negative. Radiograph of the left kidney and ureter showed no stone. Some little time after, catheters were introduced into both ureters, and a collargol picture taken by Dr. Samuel. This brought out an interesting condition. There was seen to be some dilatation of the pelvis of the left kidney, with marked dilatation of the upper portion of the ureter. The natural inference, from this picture, would be that there is some obstruction to the ureter below the point of dilatation. However, the catheter passes on up into the pelvis without difficulty. The pelvis was irrigated on four occasions, first with adrenalin solution, later with nitrate of silver solution, without anything more than a temporary influence on the bleeding. Operation was advised, but the patient has not yet consented, and he is still passing blood in his urine, now ten months since the onset of the trouble.

This case has all the ear-marks of an "essential hematuria," the atypical point being the dilatation of the pelvis and ureter, a condition which would not have been suspected without the collargol picture.

Where rest and such comparatively simple measures as irrigation of the kidney pelvis fail in these cases of idiopathic hematuria, some form of surgical interference must be considered. As one investigates the voluminous literature of the subject, he will find that success is frequently reported following any form of surgical

intervention, and, again, anything short of nephrectomy will fail in a fair proportion of cases. It is only fair to say, however, that some of these cases reported as relapses were not carefully studied, and may have really been bleeding from the opposite kidney. A case reported by Nicolich[39] is an interesting example of a number of the well recognized surgical procedures all tried on the same patient. He removed the left kidney of a woman, aged 33, for nephritic hematuria. She remained well for seven months, when she returned with bleeding from the other kidney. An exploratory lumbar incision was made down to the kidney, following which all bleeding ceased for three years, when she returned with floating kidney and severe pain on the right side. Nephrotomy and nephropexy were done. Following this last operation, she remained well for four years, when she again returned with hematuria. A decapsulation was done, and four months later she was still well.

Decapsulation, the first time deliberately done for nephritis by Edebohls in 1898, is often efficient. Most operators combine fixation of the kidney with decapsulation when operating for hematuria complicating nephritis. However the operation of choice in undiagnosed bleeding from the kidney, is polar section, preferably through Broedel's line. This operation gives an opportunity for careful examination of the kidney and the kidney pelvis, and nephrectomy can be done if the indications are clear. The chief objection to splitting the kidney is the danger of secondary hemorrhage. We know that this is not infrequent after operation for stone, and it has happened following exploratory section. When this occurs, neprectomy is usually necessary.

Removal of the kidney should rarely, if ever, be undertaken as a primary operation, and should be reserved for those cases where simpler measures have failed to stop a hematuria which endangers life. And the operation should never be undertaken until a careful test of kidney function has satisfied the surgeon that the remaining kidney is probably able to carry out the demands of renal excretion.

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Residual Urine in Old Men.

By S. P. DELAUP, M. D., New Orleans.

Why should men have residual urine, which, increasing and giving rise to retention, with a dilated bladder, ends in catheterism, and perhaps in prostatectomy? This question has caused me much thought for a good many years. In trying to answer it I have satisfied myself that certain facts are common, if not invariable. The first is age. The man is usually advanced in life, though a comparatively young man may be affected. A second point is that the patient is somewhat feeble. The man is physically past his best, though he may not think so, and may even appear healthy and robust for his age. There is a third factor which is often present, viz: an enlarged prostate. I do not give this last the prominent place that I was at one time inclined to do as a cause of residual urine, because I have not always found it present, and I have seen patients with considerably enlarged prostates who had perfect control of their bladders.

According to Miller, of Edinburgh, from whose most excellent monograph this sketch is abstracted, the presence of residual urine

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is largely due to insufficient effort being made to empty the bladder. He says that, if the urine can flow at all, it ought to be possible to empty the bladder, and if the act stops short of complete evacuation there must be some reason for this. What is the reason? We know that the man has diminished muscular power, being an old or oldish man. Also, there may be greater difficulty in passing urine on account of an enlarged prostate. But we have seen that these things are not necessarily present; moreover, an enlarged prostate causes most difficulty at the commencement of micturition. Once the flow of urine is started, it goes on, generally, however feebly or slowly. But, as I have already said, once the flow is started, it ought to be possible for the bladder to empty itself. Why does it not do so? Accepting the suggestion of Dr. Miller, I believe that the cause is a deficiency of effort on the part of the patient, which may be due to laziness, or impatience, or indifference.

The condition of mind or body to which I thus refer is that which makes the person stop (short of complete emptying of his bladder) whenever he has the sensation of relief. The man passes urine, or tries to pass it, because he has the desire, due to the sensation of distention or to irritation, and stops whenever he has relieved the sensation of discomfort. The man is satisfied with an incomplete evacuation. The result is, of course, that, as the bladder is not emptied, some urine is left. Another question that arises is, if prostatic obstruction is the cause of residual urine, why does the obstruction caused by stricture of the urethra not do the same? It is not merely obstruction, therefore, that causes residual urine. It is, I repeat, failure to empty the bladder, and this is due, in my opinion, to insufficient effort being made.

To explain, let me refer to the physiology of the act of micturition. It is twofold. First, there is the relaxation of the muscles that close the cavity; and, secondly, the contraction of the bladder, aided by atmospheric pressure, and sometimes by the abdominal and pelvic muscles. These actions are partly voluntary and partly involuntary. Normal micturition requires little or no effort. When there is any obstruction, however, considerable effort may be necessary. The patient has to hold his breath and make forcible expulsive efforts—in other words, he has to strain. Still, as I have already said, if the flow be once started, why should it not go on till the bladder is completely emptied? My suggestion is that the man stops short in his effort because he is impatient or

indifferent, or because he has acquired a bad habit, or for some other cause that I do not know. Supposing that this suggestion is right, what is the appropriate treatment of residual urine. Certainly a greater or renewed effort.

Before discussing the treatment I wish to deal very briefly with the symptoms and diagnosis of residual urine. The usual symptoms of residual urine in the bladder are frequency of micturition, more especially noticed at night; some difficulty in starting the flow of urine, and some difference in the character of the stream. In regard to the first of these, I would like to say that, in my experience, the frequency—say, every two hours—is the same during the daytime as during the night; only, during the night it is more troublesome, because it obliges the sufferer to rise out of bed. Indeed, it is this that generally leads the old man to ask for advice. He wants to be able to sleep and to get rid of the nuisance of having to rise so often. This frequency is due, in my opinion, to irritation of the bladder, caused by chemical changes in the residual urine, rather than by the quantity of fluid actually in the bladder. As to the question of diagnosis—given these symptoms, or any one of them, well marked, it may be inferred that there is residual urine present in the bladder. To make certain, a catheter may be passed. But I would submit that a test almost as reliable would be to tell the patient, after he has passed urine in his usual way, to make a second and forcible effort about a minute after. To wait longer is not advisable, for, in a very short time, the kidneys will send down quite an appreciable quantity of urine into the bladder. If an ounce or so is got rid of in this manner it may be considered as absolutely certain that there is residual urine.

The object of the treatment that Miller has suggested is twofold—to improve the muscular tone of the bladder by exercise and to train the bladder to empty itself, and to enable it to acquire a good habit. I do not deny that this may be brought about by the use of the catheter, but I submit that, with the catheter, there is always some risk, whilst with the above-mentioned method of treatment described below there is none. Besides, in the latter case, the patient carries out the treatment himself, whilst in the former he is more or less dependent on external aid. I may add that I am not sure that it is always possible to empty the bladder with the catheter. Moreover, in my experience, once the use of the catheter is commenced, it has to be continued, with the patient entering on "catheter life."

My advice to those having residnal urine is that, after passing urine in the usnal way, wait a minute or two and then try again. Practice this as frequently as possible, till only a very small quantity can be squeezed out—say, half an ounce. When this point has been reached, twice or thrice daily may suffice. The two most important times are before going to bed and on rising in the morning. On these occasions it may be advisable at first to make three, or even more, efforts so as to make sure of thoroughly emptying the bladder. It is not advisable to wait too long before making the second effort. About one minute is generally quite sufficient, certainly not more than two, because, after the act of expelling the urine, the bladder may quiet down if the patient wait too long, and a considerable effort may be required to start the flow again.

Medical writers speaking of residnal urine have often stated the fact that a habit of not quite emptying the bladder may be acquired. Hence this view as to the cause and treatment of residual urine is not new, nor is it unsupported by authority.

There are one or two things that I would like to say before concluding. The first and principal is that this treatment is applicable to, and likely to be successful only in early cases, those in which residnal urine is not more than a few ounces and atony of the bladder is not yet established. The next point is a deduction from this, that the treatment should be begun early.

Economic Value to the Community, of the Recent Work Against Tuberculosis.*

By J. GEORGE DEMPSEY, M. D., New Orleans.

The subject of tuberculosis, from an economic standpoint, is worthy of the consideration of this great and influential body—the Louisiana State Medical Society. The economic aspects of tuberculosis are of vast importance to all. When you consider the great amount of time, energy, labor, not to speak of the enormous capital, spent in combatting the ever-popular hookworm, pellagra and the latest almost epidemic, meningitis, it is about time that our old and constant friend, tubercle bacillus, should come in for its share of popularity. I emphasize *friend,* because we have him constantly at hand, on all sides, in our foods and out of them; we breathe them; we chew them; we swallow them and carry them to bed with us, and it is no wonder we grow accustomed to them, and fail or

* Read before the Louisiana State Medical Society, Thirty-third Annual Meeting, New Orleans, April 23-25, 1912.

neglect to take the necessary means at our disposal to exterminate them.

We would never have been able to consider tuberculosis from an economic standpoint were it not for the late eminent German scientist, Dr. R. Koch, who, in the year 1882, was the first to isolate the tubercle bacillus. Through his enlightenment a vast amount of good work has been accomplished, and we are enabled to classify the great problem of tuberculosis under three heads:

First, as regards the loss of the working power of the nation; second, as regards the cost of its prevention; third, as regards its treatment and cure.

We do not go very far in any movement before the question of finance arises. So, first of all, let us consider the costs of the disease to all nations: The world loses annually 1,095,000 persons a year from tuberculosis. Prof. Cornet, of Berlin, one of our greatest living authorities, reckons the cost of tuberculosis to the Kingdom of Prussia at £4,300,000 per year. Dr. Charles Reinhardt reckons the cost of tuberculosis to the City of London at £4,000,000 per year. Prof. Lindsey, M. D., of Queen's College, Belfast, Ireland, reckons the cost in Ireland at £1,000,000 per year. Germany has an expenditure of £6,500,000 per year. The United States loses $330,000,000 each year.

The above estimate is taken on the average life of a tuberculosis patient—three years—with a loss in wage-earning, housing, feeding, nourishment, medicine, nursing and doctor.

Under the second head we will consider prevention, which includes housing, segregation and sanatoria—houses properly ventilated, with sanitary provisions and plenty of space; segregating the infected ones from the non-infected; sanatoria with modern conveniences, comforts and skilled nursing.

Improved housing is a point of first importance. In Paris it has been found that in quarters near the Champs-Elysees, where the housing is excellent, the tubercular rate is only a little over 1.08 per thousand. At Grenelle and Plaisance, the poor parts of Paris, where there is much overcrowding, the tubercular rate is very nearly ten times that—it is 10.4 per thousand.

Prof. Henschen, of Stockholm, has worked out some interesting problems in that city. He finds that where there are one hundred bedrooms for one hundred persons the tubercular rate is 1.4 per thousand; where there are one hundred bedrooms for 340 persons the tubercular rate is 3.8 per thousand.

In segregating the infected from the non-infected, the control of the milk and meat supply, with the proper inspection of all dairies and the destruction of all infected cattle, also the provision of properly-ventilated schools for the children, should be considered.

The third and last point to note—sanatoria—and the cost of treatment. The cost of sanatoria and the cost of administration can be easily ascertained. Prof. Osler once said: "When you build a sanatorium, build it cheap, for the cheaper structures are the better."

I will now endeavor to confine myself to our own country, the United States, and what we are doing.

The City of New York, with its estimated population of 2,153,213 persons, loses over 10,000 persons per year of tuberculosis. With 22,165 registered cases, the expense for that year was $1,269,400.

In Boston, Drs. Locke and Floyd, after a very accurate statistic investigation, claim that, in five years, 500 patients meant a loss to the City of Boston of $500,023.00.

In the City of New Orleans, with a population of 370,000 persons, our former death rate of 1,000 per year has been reduced, in 1911, to 822 deaths.

We spend annually, through the Louisiana Anti-Tuberculosis League and the Charity Hospital, the sum of $17,093.33—City of New Orleans, $2,000; State of Louisiana (Hospital), $5,000; Louisiana Anti-Tuberculosis League, $10,093.33.

The question of tuberculosis is of vital importance to the State of Louisiana. An ideal climate, with suitable soil for the production of the necessaries to feed tubercular patients, reduces the expenses of maintenance to about one-half.

Dr. Lawrence Flick estimates that the cost of each tubercular patient through the sanatorium method is $1.00 per day, and hospital care for advanced cases $1.25 per day.

The following estimates can be relied upon: In suitable cases in the first stages of this disease, the annual cost per head would be $365. Suppose one such case was kept at the camp for six months, at a cost of $182.50, and his health restored sufficiently to enable him to return to his work for the minimum time of one year, with 313 working days, with a salary of $1.50 per day. In one year's time he would have earned $469.50. Therefore he would have earned, in excess of the cost of keeping him the six months, the sum of $287.

Second-stage cases can be handled through the sanatorium treatment for a period of about two years and be able to produce, through light gardening, poultrying and ordinary light work, sufficient to pay one-half their expenses, and thereby reduce the cost of maintenance.

The advanced cases should be looked after by the State, in establishing two or three hospitals, and treatment be provided on sanatorium lines.

So far, here in New Orleans, we have no isolation hospital for these advanced stages. At present the Charity Hospital is the only retreat, and, in the past few years, have made special provisions for them. When you consider the objects and purposes of the Charity Hospital you will readily see the grave injustice to the balance of the patients, exposing them to tuberculosis, by having patients afflicted with this disease in the adjoining beds, besides depriving of beds for weeks and months, which would otherwise have been available for the reception of patients capable of cure and speedy alleviation.

Besides the work carried on by the Louisiana Anti-Tuberculosis League, through its sanatorium in St. Tamamny Parish and its clinic in New Orleans for the curative cases, its educational work is constantly going forward in this great crusade against tuberculosis. We are delivering lectures before all organized bodies, institutions, parochial and public schools, and teachers' institutes throughout the State. We, as medical men, owe it to the community to go forward, through our medical schools, colleges and hospitals, and teach prevention of tuberculosis. In the past an enormous amount of time has been consumed in the work of curing diseases, and very little time in preventing diseases. It has been well said that "nothing is so costly as disease; nothing so cheap as preventive medicine."

In conclusion, I will say: The object of this paper is to arouse the medical profession and the laity to the ravages of this deplorable disease, to bring to mind the great loss, not only in lives, but also in money, which pulmonary tuberculosis is causing to our nation, and to awaken the spirit of co-operation which is so necessary for success in stamping out the "white plague," and in the course of a generation this great and glorious country, our United States, will show a marked diminution in the prevalence of tuberculosis.

The Treatment of Fractures of the Neck of the Femur.*

By ISIDORE COHN, M. D., New Orleans.

A review of the literature of fractures of the neck of the femur for the last ten years will convince one that a revolution of methods has been attempted, and that every progressive step has met with opposition from those who would cling to the traditional concepts. Briefly stated, the change may be represented by the expressions of Bissel (1903) and Whitman, the advocate of modern methods (in 1904). In speaking of a patient who has sustained a fracture of the neck of the femur, Bissel states: "If he escapes with his life he has to be contented with loss of function, loss of symmetry, and is obliged to go about permanently crippled." Whitman, on the other hand, states: "Contrary to the accepted teaching, one should always aim to disengage an impaction, in order to restore, as far as possible, the normal contour, for, under efficient fixation, there should be but little danger of non-union."

Statistics that I have been able to find are of little value, save to condemn the text-book methods. Some of the statistics are inadequate, because the cases tabulated either lack detail as to the method used or the end results of all cases reported are not contained in the reports.

Scudder tabulated the cases treated at the Massachusetts General Hospital, the method used being longitudinal traction (Buck's extension and immobilization, with a long lateral splint). "In only two cases out of sixteen could it be said that the leg was useful." * * * "The conclusion is evident that old-time methods of treatment of fractures of the neck of the femur is not productive of satisfactory results."

Of 112 cases reviewed by Walker which had been treated at Bellevue, we find: "Thirty are unable to work on account of persistent impairment of function through pain; through restriction of movement at the hip, on account of shortening and adduction; through necessity of dependence on crutches. Twelve are walking with a cane; ten were still in the hospital; ten are free from pain and stiffness, and twenty-two showed improvement." Though these statistics were sufficient to make Walker try Whitman's abduction method, they were not enough to prevent an eminent authority, who is a consulting surgeon to the same hospital, from saying:

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"The attainment of the ideal object of treatment—restoration of form and function—is rarely to be expected, or even sought."

The result of Walker's trial of the newer method in sixteen cases shows that four cases walked with no pain within one year, the greatest amount of shortening reported by him being one-half an inch, and abduction and flexion were normal. The other cases were not of sufficient duration to report on them, but he says: "There is every reason to believe that the results in these cases will be as favorable as in those first reported."

In spite of the foregoing, we find modern text-books giving the following: "Rest in bed—leg between sand-bags or Liston splint; never disempact." Another, devoted to joint fractures, says: "In case we have an impacted fracture, we may let the fracture alone, or we may rely on sand-bags, or use a long outside splint alone, or apply extension, with both sand-bags and splints" (1911). The "let-alone" policy condemns the patient to disability, which is permanent and progressive. "As a result of impaction the neck of the femur is lowered, there is a corresponding limitation of abduction of the limb, and an accommodative shortening of abductor muscles confirms the deformity." (Whitman.)

The long, lateral splint and traction has received its proper share of criticism. "It should be apparent that the weight, acting against the friction of the bed, can have but little influence on the deformity, as is demonstrated in most instances when the apparatus is removed." (Whitman.)

Bloodgood, in 1909, wrote: "I feel that I should write that extension treatment for fractures of the neck of the femur is unjustifiable."

In the treatment of fractures it is of prime importance that we keep our anatomy in mind, and especially the muscular attachments, as it is mainly through muscular contraction that we have deformity, or to a lack of muscular control of a part. The lack of this control of the upper fragment in the fracture in question has made one of our authorities skeptical of the value of treatment in general. To quote him: "The lack of muscular control of the upper fragment insures limitation of motion."

To the greater trochanter we find attached muscles which assist in rotating the thigh outward (gluteus medius, pyroformis, obturator internus, and the gemelli), and to the lesser trochanter there are attached muscles for the purpose of outward rotation and flexion of the thigh (psoas and iliacus). The adductors and the

quadriceps, by contraction after fracture, cause shortening and adduction. As a result of the combined muscular actions we have the typical deformity—flexion, adduction and outward rotation of the thigh, and eversion of the feet.

The essential feature of any method of treatment of fractures which is logical and aims at results must be the reduction of the deformity. In this instance this can only be accomplished by breaking up an impaction, if it exists, and then bringing the distal fragment in the axis of the proximal fragment. The fear of breaking up an impaction is in many cases based on a fear of non-union, which is supposed to result more often in intra-capsular fractures than in extra-capsular fractures. The truth is that not so much depends on whether it is intra- or extra-capsular, but on the proximity of the line of fracture to the junction of the head and neck. Fractures above that line are more liable to non-union, because the upper fragment only receives a blood supply through the ligamentum teres. Many who would hesitate to break up this impaction would not hesitate to open that same joint by introducing some foreign substance, such as a nail. They have no guarantee that the nail will not have to be removed, or that they are not introducing infection at the time of the operation—the same being, according to Mr. Lane, deadly to operative treatment of fractures. Traction under anesthesia, and then abduction of the thigh as far as possible, and fixation in the abducted position, constitute the methods as advocated by Whitman. Whitman claims that the margin of the acetabulum acts as a natural landmark to prevent abduction, which would be sufficient to cause laceration of the capsule of the joint. By abduction the fractured surface of the neck is turned down to meet the fractured surface of the head; the capsule is made tense, thus holding the fragments in good apposition; the abductors are relaxed, hence there is no tendency on their part to produce deformity. Thus we find ourselves possessed of a method by which, with the aid of retentive apparatus, either a plaster cast or a modified Thomas-Ridlon double hip splint, we can hope for better results than routine methods now in use give us. By the use of this method and the Fowler position, Whitman believes that we can avoid hypostases in many cases. The patient may be handled without disturbing the seat of fracture, and decubitus is less likely to result.

Two cases of fracture of the neck of the femur in the aged have

come under my observation within the past two months, and although my results have not been ideal, as one patient died and the other is still under observation, I felt that it would not be amiss to discuss them before you:

Mr. R., age 86, was found one morning about 2 o'clock on the floor of his bedroom. He had no recollection of having gotten out of bed; all that he realized was that efforts to move his leg were futile. I saw him two days after the accident, and the examination revealed a typical deformity; the foot was everted and the leg shorter. He experienced great pain when effort was made to manipulate the leg. I had him removed to the Touro Infirmary and, under slight anesthesia, the leg was manipulated and a cast put on, with the thigh in abduction. He was returned to bed, and the head of the bed was elevated. On account of an incontinence of urine and feces the cast became rapidly soiled, and it was necessary to remove the cast. I then decided to have a double-modified Thomas Ridlon splint made for him. A crosspiece of steel connected the lower cuffs of the brace in such a manner that any degree of abduction could be maintained. This proved very satisfactory. But in spite of every effort he died after three weeks.

Case 2. Miss S., age 63. Ten years ago she had a fracture of the right hip, and since that time has had to walk with a cane, because of shortening and the eversion of the foot and outward rotation of the leg. While walking with a cane she slipped and fell. She was not immediately disabled, however, and even when I first examined her the attitude of the injured side was normal, and measurements revealed that the left leg was still three-quarters of an inch longer than the right. I was able to manipulate the left hip without great pain to the patient; there was no evidence of contusion, and I therefore concluded that nothing serious had happened. After two days I was again called to see her, and because of the continuance of pain I had her taken to the infirmary, and the radiograph established for me a diagnosis of fracture of the neck of the femur.

The treatment was the same as before. I hope that by the time this report goes to print I will be able to add the outcome of this last case.

Discussion on Dr. Cohn's Paper.

Dr. Urban Maes, New Orleans: I want to thank Dr. Cohn for again calling our attention to a very important matter. Several year ago I had occasion to look up statistics with regard to intracapsular fractures of the femur, and found that many surgeons were satisfied with what is known as fibrous union. Sixty per cent. of the patients never had true osseous union after these fractures. This was considered at the time to be due to old age. This fact has been disproved, and when we consider the deformity which takes place in intracapsular fractures, the interposition of soft parts between fragments plays an important part in non-union. We have methods of treatment, notably the Whitman, which overcome the interposition of soft parts, and thereby give better opportunity for bony union. The Whitman method has the ad-

vantage of putting the fragments into line—that is, in the line of the axis of the neck—and, by a proper retaining apparatus, keeps them there. In the reduction of the fracture we are likely to have interposition of capsule by a vicious function of the psoas-iliacus tendon. In my estimation, the cause of fibrous union in many of these cases has been the interposition of capsule. The psoas-iliacus tendon uses the capsule of the joint as a pulley, and, in its contraction, forces soft parts in between the fragments, especially if there has been any laceration at the time of fracture. This is the cause of fibrous union, and no ordinary traction apparatus, such as Buck's extension, is capable of keeping the fragments in proper position. The Whitman apparatus has the advantage over most other treatments in that it puts the fragments into proper line, overcomes the deformity, and takes care of the vicious function of the psoas-iliacus tendon.

Dr. L. Sexton, New Orleans: One of the reasons why we do not get approximation in these cases of fracture of the neck of the femur is that, when the fracture is produced, very often the bones are pulled so far apart that the circulation in the head of the femur is cut off, and unless you get approximation at once of the small portion of the head that is broken off, it is likely to lose its supply of blood.

In visiting the Mayo clinic last year the idea was suggested of nailing the bone at the time of fracture, drilling through the trochanter major into the head of the femur, and putting in an aluminum nail. I did not see any operations of that kind done. I do not know whether any one has attempted that operation or not in New Orleans. One of the great risks in all of the cases I have seen in old subjects is that they have never healed or united. They have not had the percentage of unions the doctor spoke of, quite a number of them going on frail legs, from tripipng on the carpet and fracturing the femur, and are disabled for life. I certainly hope that, by adopting the method that has been described, we will get better results.

Dr. O. W. Cosby, Monroe: Two years ago, while I was in Chicago, I saw some of Murphy's work in this line. Dr. Murphy almost invariably nails the head of the femur to the neck, in the method described by the doctor just now. He states that nearly always the circulation in the fragment of the head that is broken off is so impaired that the head dies, but, even though it dies, it

will serve a useful function if it is nailed to the major portion. That, after a portion of the head has been fractured off and is dead, it will furnish a framework for the regeneration of new bone.

Dr. E. S. Hatch, New Orleans: I think we can use this method in many cases. I have enjoyed the paper very much, but the part that interested me most is the nailing of the hip-joint in old ununited fractures. I reported, a year or more ago, three cases in which I nailed the hip-joint in old intracapsular fracture with nonunion, and where a diagnosis was not made. The patients had been treated for so-called dislocation of the hip-joint and were walking on crutches. The results in these three cases were excellent.

Dr. Isidore Cohn, New Orleans (closing the discussion): Ashhurst and Newell, in some statistics, to which I did not refer in my paper, tried the Maxwell method. They had nailed five cases out of twenty-one, with nothing like perfect results. If you will refer to some of the methods and to the patients walking around with crutches, who have no union, you will find that many of them have been treated by the Lister splint and Buck's extension, and no attempt made to employ the Whitman method.

In regard to the regeneration of bone after a certain age, I do not believe that Dr. Murphy expects to put a nail in a fracture of the neck of the femur in a patient over seventy and get regeneration of bone. The nearest thing we can expect in these cases is to simply reduce the deformity. After the deformity is reduced, Nature will do more than she would have done if we had improper apposition, because we know one cause of delayed union is improper apposition and improper fixation of the parts.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The Charity Hospital.

The annual meeting of the Board of Administrators of the New Orleans Charity Hospital developed some changes which promise the beginning of a response to the activities of the medical profession of the city and state aiming at a revision of hospital conditions.

The daily press announced the calling of Dr. A. S. Goldwater, at Mt. Sinai Hospital, New York, as an expert to investigate the hospital, and from the thorough way in which that investigation was conducted it is expected that a comprehensive recommendation will follow, calling for many changes in the detail and method of the hospital.

The meeting of the board announced the resignation of the pathologist, Dr. O. L. Pothier, the details connected therewith not being given. The board further took action upon the admission of patients wholesale from neighboring states, declaring that hereafter patients will only be admitted from Louisiana, though this rule would not exclude citizens of other states who might be taken ill while in Louisiana.

Steps were also taken to derive incomes from the state generally, from the legitimate sources to which the hospital was entitled, such as license taxes for dances, balls, etc., now collected only in New Orleans.

Mr. Frank B. Hayne was elected permanent vice-president of the board and the several committees appointed at the first organization of the board were reappointed.

An extensive report was presented by the house surgeon, covering the statistics of the patients and conditions of the hospital. From the report the following items are of interest:

Admissions, 12,983; daily average of patients, 953; accident cases, 11,106; outdoor clinics, 23,203; consultations in outdoor clinics, 109,798; total number of operations in ampitheater, 2,765; ambulance cases, 2,242; total number of patients treated in all

departments, over 60,000; total deaths, 919; percentage of deaths, 56.27 per 1,000.

The house surgeon called attention to needs and changes in the plumbing, heating, laundry, new buildings for patients, provision for contagious diseases, etc.

The activity of the new board of the Charity Hospital is most commendable, as it is noteworthy, and it is generally expected that with the gradual operation of its functions, there will come about those changes in the hospital, which will make for an improvement in all particulars, to the advantage of all concerned, especially to the benefit of the sick.

The Antituberculosis League Camp.

The Louisiana Antituberculosis League has been maintaining for some time Camp Hygeia in St. Tammany Parish, which is intended for the care and treatment of early cases of tuberculosis.

In the beginning, when more or less advanced cases also were accepted at the camp, a comparatively large number of patients availed themselves of the opportunities offered, and a great deal of good was accomplished.

Within the last year, however, the rule limiting the admission to early and curable cases has been rigidly enforced, and, while the benefit to those admitted has been increased, a much smaller number of patients have applied for treatment and the facilities of the camp have not been enjoyed adequately. The expenses have as a matter of course been almost as great and the resulting good has not been in proportion.

The correction of the deficiency lies with the medical profession of the state. Its members must aim to make an early diagnosis when tuberculosis exists, and the needy among the afflicted must be advised to seek admission at the camp, where amid the pines, with good food and intelligent care, they will have a splendid opportunity of getting well. That each cure is of vast moment to the patient, to those depending upon him or her or upon whom he or she is dependent, and to those who in default of an arrest of the disease might have been infected later on by the sufferer need not be stressed.

Suitable or *early* cases should be referred to the Antituberculosis Clinic of the League on Tulane Avenue, New Orleans. After a

proper examination all those found to be in the proper stage will be admitted to Camp Hygeia free of expense and up to the space available, which recently has been taxed to not more than a third of its capacity. This will insure them a good chance for health and life and both directly and indirectly conserve the interests of our commonwealth.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of Dr. P. Michinard and Dr. C. J. Miller, New Orleans.

The Treatment of Eclampsia.—Freund *(Archiv. f. Gyn.,* Bd. XCVII, H. 3) presents his views, based on a series of 551 cases treated in the "Charite" in Berlin, in which most of the accepted methods of treatment were employed. The mortality of the series was 17.2 per cent., about equally divided between antepartum and postpartum cases. Among 355 cases delivered by operative means, there were 56 deaths, from which he deducts 10 due directly to the operation. The fetal mortality in the entire series was 11.5 per cent. In view of the unsatisfactory state of the therapeutics of this disease, Freund states that the early operative delivery will hereafter be followed in the two large Berlin women's clinics, and the palliative treatment limited to the cases of postpartum eclampsia. Early and rapid emptying of the uterus was found apparently to give the best results. In judging the effects of this method, future statistics must take into account the interval between the first convulsion and the completion of the third stage, and not the number of convulsions antedating labor. After radical delivery, Freund believes that the various prognostic measures, such as the functional kidney test, etc., must be relied upon to dictate further measures in the treatment. Among the palliative measures, venesection is recommended on account of the depressant effect on the blood-pressure, particularly in postpartum eclampsia with a high-tension pulse. Freund is personally convinced that an exclusive narcotic method of treatment is valueless.—*(Amer. Jour. Obst.)*—Miller.

The Present State of Abdominal Cesarean Section.—Reuben Petersen *(Surg., Gyn. and Obst.,* July, 1912) discusses the subject in the light of the present-day results, under the following headings: 1. In contracted pelvis is Cesarean section, or the induction of labor, most advantageous for mother and child? The advantages of the induction of labor lie in the absence of maternal mortality if proper methods are employed; but, on the other hand, there is a considerable fetal mortality connected with the procedure which probably no improvement in diagnosis or technic will ever materially lessen. The living fetus should always be the most essential part of the obstetrical problem, and its interests guarded in every way. Aside from the question of absolute contraction, it should not be forgotten that the measurement of the true conjugate diameter cannot always be made with exactitude, and its length is only approximate. Peterson believes that, in the interest of the child, the Cesarean section, at term or pubiotomy, will in time be considered more favorable than the induction of premature labor. 2. Under what condition is craniotomy on the living child indicated in preference to Cesarean section? This depends on whether the mother is septic, the fetus feeble and not likely to survive under any conditions, when the fetus is a monster or badly deformed, and when, from the necessities of the case, either craniotomy or Cesarean section must be performed by unskilled hands. 3. In what cases of contracted pelvis is pubiotomy preferable to Cesarean section? This must be limited to cases of pelvic deformity, where the conjugate is 7. or 7.5 c. m. or less, and it is only in cases where the diameter varies from 7.5 to 9.5 c. m. that the two operations compete with each other. In primipara it is impossible to determine the results, except by a test of labor, hence elective Cesarean section is not justifiable. Peterson believes that if three or four hours' second stage shows that spontaneous delivery is not going to take place, and traction with forceps fails to accomplish anything, it is best to perform pubiotomy in place of Cesarean section, since the results are better. Where sepsis is present, both operations are contraindicated in favor of craniotomy. 4. Under what septic conditions is Cesarean section indicated or contraindicated? Peterson favors the classical Cesarean section, using a six-inch incision, half above and half below and to the left of the umbilicus. The uterus is incised before delivering it through the abdominal incision, and no gauze packs

used. If the placenta presents, it is cut through or pushed aside and the child delivered feet first. The removal of the placenta is followed by the careful removal of the membranes, and only when there is excessive oozing does the assistant grasp the broad ligament. The myometrium is brought together with a continuous No. 2 twenty-day chromic catgut, and the peritoneal surface with a continuous silk Lembert suture. The abdominal wound is closed in layers, and no gauze is used in the cervix for drainage. The after-treatment is the same as for any laparotomy or puerperal patient.—Miller.

Department of General Surgery.

In Charge of Dr. F. A. Larue, New Orleans.

Fatal Post-Operative Embolism.—(Louis B. Wilson, Pathologist to the Mayo Clinic at Rochester, Minn., in *Annals of Surgery*, December, 1912.)—The total number of fatalities from embolism, based on 63,573 operations at this clinic, was 5 per cent. of a total mortality from all causes of 864, or 0.07 per cent. of the total number of operations, or one death in every 1,352 operations. Grouped according to the anatomical regions on which the preceding operation was done, the highest percentage of embolism occurred after operations on the prostate, namely, 0.66 per cent., or four out of 601 operations.

Nineteen of the fatalities occurred within the first week after operation, twenty-one more within the second week, four in the third week and one each on the twenty-sixth, thirtieth and sixty-fourth day after operation. These latter three patients had all left the hospital, and were all well along in convalescence when the accident took place. It is subsequent to operations on the stomach, gallbladder, lower bowel and prostate that most of the fatalities have occurred from this cause. During the first ten years there were no fatalities from embolism, this being explained as due probably to the fact that the number of operations on the stomach, gallbladder, lower bowel and prostate in this time were relatively small, and also that most of the patients were drawn from the private practices of the members of the staff, and were not so far advanced in disease. In the last twelve years, during which all the

fatalities have occurred, most of the cases have been referred, and a large number were of the "last resort" type. It is in this class of cases in which most of the emboli have occurred.

The most important factors concerned in extensive post-operative thrombosis are as follows: (1) Injury to the vascular walls; (2) slowing and stagnation of the blood stream; (3) disintegration of the blood corpuscles from toxic substances; (4) bacteræmia. The above-mentioned factor suggest as measures tending to prevent embolism and thrombosis after operation the following: (1) The reduction of vascular traumatism at operation to a minimum; (2) the encouragement of very early free movement on the part of the patient as soon as the nature of the operation and the danger of operation will permit, though it must be confessed (he states) that the reported results from the various clinics of "getting the patient up early" are unconvincing as to the reduction of post-operative embolism. If it can be done early enough to *prevent* the formation of extensive thrombi, it would seem to be most desirable. If, on the other hand, the condition of the patient's blood, either from anæmia or bacteræmia, is such as to lead to the suspicion that extensive thrombi *may have been formed* before it is possible to permit free movement on the part of the patient, it would then seem the part of wisdom to keep the patient as quietly as possible in a recumbent position, to prevent the dislocation of the already formed thrombi. (3) The pre-operative administration of drugs to increase the coagulability of the blood, this being of questionable value so far as embolism and thrombosis are concerned; (4) measures looking toward the reduction of bacteræmia. Preliminary vaccination here is looked upon favorably.

Cancer of the Esophagus from the Standpoint of Intra-Thoracic Surgery.—Willy Meyer, M. D., of New York City, in *Surgery, Gynecology and Obstetrics* for December, 1912, reports four cases of carcinoma of the esophagus operated on by the intra-thoracic method, with death of all cases. He states that, "in order to further the evolution of thoracic surgery, I think that operators in this field should consider it their duty to publish in full their personal experiences, favorable or unfavorable." He cites as reasons for the failures that have thus far attended all efforts in this work the following:

(1) The general condition of the patients, this being too much reduced by the time they reach the surgeon.

(2) The spread of the disease, the local growth involving also the pneumogastric and sympathetic nerves, aorta and lung.

(3) The magnitude of the operation.

(4) The extreme thinness in man of the wall of the esophagus.

One of the greatest difficulties in the way of success seems to be due to the frequent involvement of the pneumogastric nerves, and great stress is laid upon the necessity for gentle handling of these structures, and sharp dissection, so as to avoid all tugging upon them, pneumogastric death being the most frequent outcome. Efforts should not be limited to cases in which a certain portion of the tube (the cardiac end) is involved, as it is only by attempts to eradicate the disease at all localities that ultimate results are to be attained. The statement that cancer of the esophagus is the least malign of all malignant tumors is worthy of note.

Circular Resection and Suture of the Axillary Artery for Transverse Laceration by Fracture-Dislocation of Anatomical Neck of the Humerus.—J. J. Buchanan, M. D., in *Surgery, Gynecology and Obstetrics* for December, 1912, reports a case in which the axillary artery was torn through about four-fifths of its diameter in its third portion, at the point of emergence of the subscapular and posterior circumflex branches. These branches were tied and the ends of the torn vessel cut away to provide smooth edges for suturing. There was some atheroma of the vessel, which prevented through-and-through suturing, on account of the breaking off of the intima which would have therefrom resulted; and but two guy sutures were used, instead of three, as in the technic of Carrel. The variation from this technic is interesting, as indicating that in vessel surgery, as in other details, we are allowed some latitude. Another point of interest lay in the fact that the wound in the vessel had been plugged firmly by the broken-off humeral head, the edge of the bone fitting into the laceration, so that there was but little local hemorrhage. After closure of the wound by circular suture a long catgut ligature was placed around the artery, loosely tied, and its ends brought out of the wound. This provided for quick ligaturing in the case of hemorrhage, and, while not proving subsequently necessary here, it is certainly a very wise precaution.

The author also reviews the literature upon the subject, and cites briefly twenty-nine cases of arterial suture.

Department of Nervous and Mental Diseases.

In Charge of Dr. R. M. Van Wart, New Orleans.

Epilepsy.—De Fleury expresses his belief *(Journ. des praticiens,* October 26, 1912) that, in all cases of epilepsy, a meningo-encephalitis is already in existence. In some cases the lesion is both the predisposing and the immediate exciting cause of the attacks; these are the bad cases, in which treatment is unavailing. In the majority, however, the lesion only causes a predisposition to the paroxysm—the patient is a potential epileptic only.

The author quotes some interesting experiments of Claude and Lejonne, in which a sub-dural injection of zinc chloride set up a condition of meningo-encephalitis affecting the motor area. After some months' respite and apparent cure, the animals were given small doses of strychnin in their food. This was follwed by epileptoid crises. Control animals, which had no previous meningeal irritation, were in no way affected. The author goes on to say that the result of these experiments are in every way comparable to the pathology of the condition in the human being. Meningo-encephalitis may develop in intrauterine life, followed by convulsive attacks in infancy. These disapepar, leaving no apparent trace behind, but towards the eighth to the twelfth years, very often as the result of peripheral irritations, such as digestive troubles, true epileptic troubles begin. Most authorities have noted in the preconvulsive period furred tongue, fetid breath and constipation alternating with offensive stools, and certain monographs have described a gastro-intestinal epilepsy—this being, according to the author, an improper title.

After reviewing the various exciting causes suggested by different authorities, the author states his belief that Herter's views of excessive intestinal putrefaction, as betrayed by indicanuria, appears the most reasonable exciting cause. He refers to a number of cases, some of them very obstinate, in which a vegetarian dietary combined with one of the lactic acid preparations gave very striking results. The regimen recommended is strictly vegetable, suppressing all food of animal origin. Milk and eggs are particularly undesirable. If the patient has passed some months without an attack, he is allowed a little red meat, well cooked and carefully masticated, at the midday meal. Beverages of a diuretic character

especially may be given freely between meals, a litre being sufficient during the day. Any larger quantity might prove harmful by raising the blood pressure. Preparations of lactic acid are given in the form of bouillon, the most acid preparations being the most active.

In the author's views, the great majority of cases, excluding those of Jacksonian origin, have as a determining cause of the convulsions an organic poison of intestinal origin. The results of this treatment have proved this. He does not agree with those who think that the convulsive poison is an auto-cytotoxin.—Van Wart.

Glycosuria in Tuberculous Meningitis.—(R. S. Frew and A. E. Garrod, *Lancet,* January 4, 1913, p. 15.)—Examination of forty-one cases of tuberculous meningitis showed the presence of glucose in the urine in fifteen, or 36.6 per cent of the cases. In eleven of the remaining twenty-six cases a partial reduction of Fehling's solution was obtained at the same period of the disease as the reduction was obtained in the fifteen positive cases. The diagnosis was confirmed by autopsy in thirty-eight cases, and in the remaining three tubercle bacilli was found in the urine.

Clinically, the cases with glycosuria presented little difference from those without. In the great majority of cases it appeared in the last forty-eight hours of life. There was nothing found in the cases examined *postmortem* to indicate the exact cause of the glycosuria.—Van Wart.

Concerning a Hitherto Undescribed Form of Cutaneous Muscular Dystrophy.—C. F. Zanelli, *Riv. di Patol. nerv. e. ment.,* Vol. 17, Fasc. 6, 1912, p. 344.)—The patient was an 18-months-old baby born of normal parents. From birth she was noted to have been undersized and very feeble. When brought to the clinic the following anomalies were noted: The skin was nowhere tense, as in normal children, but hung in a series of flabby folds, which were especially marked over the nates, the abdomen and the joints. The pannicula adiposa was well developed, especially over the thighs and buttocks. The muscles were ill-developed generally, and markedly hypotonic. There was a persistent congenital fistula in the neck, from which flowed a colorless fluid. Retrosternal dullness indicated an enlarged thymus. As regards the skeleton, the head was large, the pelvis was broad, and there was a slight lumbar lordosis; there were no disturbances of ossification. The reflexes were normal. The child could stand

with difficulty, and was unable to walk without support, when the gait was waddling. The intelligence was normal. The case is said to have been improved by the exhibition of thyroid gland.—Van Wart.

Two Cases of Colloid Tumor of the Third Ventricle Causing Death.—(Arthur J. Hall, M. D., *Lancet,* January 11, 1913, p. 89.)—The first patient was found unconscious on the street, and on admission to the hospital the left pupil was larger than the right and the knee-jerks absent. The temperature, 98.7° on admission, rose to 105.4° before death a few hours later. The autopsy showed the presence of a round, semi-translucent tumor, lying in the anterior part of the third ventricle. It was about the size of a small marble, and attached by a fibrous band to the right choroid plexus.

The second case, an unmarried woman aged 18, had suffered from nocturnal enuresis from childhood. Six months before death she commenced to suffer from headache. She was found dead in bed following an exacerbation of her headache. A tumor, similar in size and position to that present in the first case, was found at autopsy.

The histological examination in the two cases showed a fibrous outer capsule covering a layer of epithelial cells. The center was composed of hyalin material, with degenerated epithelial cells. Five similar cases had been previously reported.—Van Wart.

Chemo-Immunological Studies on Localized Infections. Fourth Paper: Experimental Pneumococcal Meningitis and Its Specific Treatment.—(R. L. Lamar, *Journ. Exp. Med.,* Vol. XVI, No. 5, November 1, 1912, p. 581.)—Virulent pneumococci injected into the cranial or spinal cavities of monkeys produce constantly a meningitis closely resembling pneumococcus meningitis in man, except that the experimental diseases pursue a more rapid course to the invariable death of the untreated animal.

An homologous immune pneumococcus serum injected into the spinal canal exerts a restraining influence upon the disease to the extent that, when employed early, it prevented, exceptionally, the occurrence of infection, and thus saved the life of the animal, and, when given later, it at first retarded the disease, but subsequently exerted no beneficial action and was powerless to save life.

A mixture of sodium oleate, immune serum, and boric acid excited regularly a more powerful action than immune serum

alone, and not only prevented the occurrence of infection, but also, when administered repeatedly, arrested the progress of an actually established infection, and led, often, to the enduring and perfect recovery of the inoculated animal.

It is proposed to employ a similar mixture in the direct treatment of pneumococcic meningitis, and possibly of still other accessible pneumococcic infections in man.—Van Wart.

Department of Therapeutics and Pharmacology.

In Charge of Dr. J. A. Storck and Dr. J. T. Halsey, New Orleans.

Tertiary Syphilis of Liver.—Syphilis of the liver, McCrea says, presents a very varied clinical picture, with prominent general symptoms in many cases, of which loss in weight is marked. The duration of the symptoms may be prolonged, and there may be periods of improvement. Fever is a common occurrence. There are features suggestive of hepatic disease in the majority of the cases. Enlargement or tumor is the most common. This may suggest other conditions, especially malignant disease. General enlargement and the occurrence of nodules or large rounded masses are the most common. A striking feature is the relatively marked enlargement of the left lobe as compared with the right. The diagnosis may be obscured by other diseased conditions, or the liver condition may be interpreted wrongly. Ascites is sometimes a difficulty. Knowledge of the features of hepatic syphilis and the therapeutic test are important aids. Treatment can influence the syphilitic process, but not its results (cirrhosis, amyloid.)—*American Journal of Medical Science,* Philadelphia.—J. A. S.

Hemoptysis in Tuberculosis.—Although there exists considerable difference of opinion as to the causes of hemoptysis, Frazer says there is practical uniformity in the methods employed in the treatment of this condition, despite the use of drugs apparently antagonistic in their action and other minor details. The first indication is to reduce blood-pressure. As hemoptyses are sometimes preceded by a sense of tightness in the chest or by the presence of blood-streaked sputum, it may be possible to prevent their occurrence by insisting on absolute rest and by the adminis-

tration of a drug—such as the nitrites—with the view of decreasing vascular pressure. Either of the following may be used:

℞	Gm. or c.c.		
Sp. nitroglycerin	1		m xv
Aqua.	60	or	℥ij

M. S. Dose, ℥j.

℞	Gm. or c.c.		
Sodii nitritis	1		gr. xv
Aqua.	60	or	℥ij

M. S. Dose, ℥j.

A teaspoonful of either of the above may be given every four hours for two or three days.

More commonly, perhaps, the patient receives no warning, and the physician is summoned to treat an active hemorrhage. In the presence of this condition the indications are three in number—to secure absolute physical rest, to quiet the fears of the patient, and to lower the blood-pressure, attempting in this manner to favor the formation of a clot, which is nature's method of checking hemorrhage. This means that the patient must be put to bed and all unnecessary movements on his part must be avoided; he is not allowed to get up to attend to the demands of nature, nor is he allowed to talk. A comfortable position should be assumed; usually the semi-recumbent posture (with one or two pillows under the head) is best; and the patient should be assured in a few words that there is little cause for apprehension. Frazer's practice is to break one of the little "packages" of amyl nitrite, holding it for several minutes under the patient's nostrils. The patient should also receive atropin, gr. $\frac{1}{50}$, hypodermically, and this dose may be repeated two or three times within the next twenty-four hours. In place of atropin, nitroglycerin may be administered hypodermically in doses of gr. $\frac{1}{100}$, repeated at short intervals, at first every half hour or hour, for three or four doses, later less frequently. After vasodilation has been obtained, more permanent effects may be secured by the use of sodium nitrite, gr. j, every three or four hours. Morphin, although used considerably in hemoptysis, should not be resorted to as a routine measure. It is indicated if the cough be troublesome, but its field of greatest usefulness is in those cases in which excessive nervous irritability exists. It is customary, at

the onset of the hemorrhage, to place a light icebag over the precordium, with a view to quieting the heart's action.

There is no specific diet for patients with hemoptysis, but the amount given should be small and fluid in character (milk in small quantities and egg albumin are suitable); especially it is necessary to restrict the diet during the first twenty-four hours. While depletion through the intestines by means of catharsis has been advised, and is theoretically indicated, it is better to wait twenty-four hours before attempting to move the bowels, on account of the exertion which this action imposes on the patient. Also examination of the chest should not be undertaken, or should be restricted to auscultation; under no circumstances should percussion be practiced. As to the length of time that a patient who has had an hemoptysis should stay in bed, there exists considerable difference of opinion; it is safer to insist on rest in bed for twenty-four to forty-eight hours after the expectoration of post-hemorrhagic clots has ceased.—*N. Y. Medical Record.*—J. A. S.

Physical Evidence of Thymus.—In order to determine whether it is possible to obtain a clear shadow of the thymus in a Rœntgen photograph, Basch and Rohn prepared photographs of a young dog having a relatively large thymus, before and after extirpation, by means of instantaneous and time exposure, and a lead screen. In order to mark the exact location of the extirpation they sewed up the sternal cut with silver thread; nevertheless, they were unable to find in the photographs any marks which could be definitely declared to be thymus shadows. Next they took instantaneous pictures of an anatomic preparation of the sternum of a young dog, one exposure with thymus attached and another of the sternum alone; they could neither find any sign of a thymus shadow, nor see that the clear picture of the sternum was at all obscured by the underlying thymus. Also the thoracic photograph of two young children of the ages of two and six months gave negative results in respect to thymus shadows. The taking of further pictures induced them to regard the question of the clearness of the thymus shadow as still unsettled, and to speak very reservedly of their ability to give an instantaneous and unmistakable conclusion of the size of the thymus.

The authors then resorted to auscultation-percussion. In order to make it possible for one person to do this auscultation and percussion, and to make the technic as exact and uniform as possible,

Basch constructed an instrument which duplicates the mechanism of the percussing finger, but is lighter, and can be easily used with one hand. It touches only about a quarter of a centimeter of surface, and can easily be moved across these small areas laterally as well as longitudinally. The shut-off stethoscope is held over the midstream with the other hand, and the percussion note heard by the one who makes it. The use of this new instrument shows that it is possible to obtain a more definite and exact outline of the anterior thoracic organs than by earlier methods, such as the finger. In contrast to the triangular area of dullness over the thymus pictured by Blumenreich, the authors found, by direct and by ausculatory percussion, an area somewhat larger than that which has been demonstrated.

Besides this, they have used a method to outline the lateral areas of the thymus, described by Bianchi and A. Smith, the so-called friction method. By this method they examined in the out-patient clinic of the hospital a number of children aged six to eighteen months, and later up to three and four years. Beyond the fifth year no sure thymus dullness could be demonstrated. They conclude that the greatest anatomic development and the most important biologic epoch could be looked for between the second six months and the third year of life. Systematic examination of 140 cases shows that the size of the thymus varies according to the age of the child and its nutritive condition, and to certain pathological conditions. Normally the area of thymus dullness in children shows a rhomboid form, which extends from the jugular down to the second or third rib, and whose lateral borders are confined to the sternal and parasternal lines. By exact drawings of the clinical findings on a diagram of the anterior thorax they can be correctly compared with the autopsy results.—*Am. Jour. of Dis. of Children,* Chicago.—J. A. S.

Miscellaneous.

Treatment of Beriberi.—The treatment employed so successfully by the authors in three cases consisted of a full mixed diet, with the addition of yeast (one ounce daily) and Katjangidjo beans (200 gm. daily). One patient was discharged sixteen days after commencement of treatment, walking perfectly, with knee-jerks normal and no pain or edema. The improvement in the condition of these patients was much more rapid than is customary, and

would seem to show the marked curative power of the addition to the diet of Katjangidjo beans, as recommended by Hulshoff Pol, and of yeast, as recomemnded by Schaumann. The yeast was of the variety used by brewers, and was administered in rice papers, the patients being able to swallow in this fashion about one dram at a time.—*Annals of Tropical Medicine and Parasitology* (Liverpool)—J. A. S.

Immunity Transmission from Mother to Offspring.—To summarize briefly the principal results of Famulener's experiments, it was found that goats actively immuned against sheep blood-corpuscles during gestation passively transmitted the specific hemolysin to their young. The colostrum was the chief agent in bringing about the passive immunization of the suckling. Sucklings which got the colostrum and first milk rapidly acquired a relatively high antibody content in their blood, which was well retained. When the immunization was done during the period of gestation the colostrum contained a high content of specific hemolysin, often much higher than the adult's serum at time of parturition. The hemolytic antibodies rapidly disappeared from the milk after the mother had been sucked by the young. The blood taken from the newly-born, before they were permitted the antibody colostrum showed no appreciable amount of hemolysin by the test used. The placenta played a minor rôle in the passage of hemolysins to young before birth—practically negligible in most cases. Mother goats, actively immunized against sheep-blood-corpuscles immediately after the birth of their young, failed to transmit any demonstrable immunity to their suckling young. The milk, in some cases, contained no demonstrable hemolysins, but in others showed fairly large amounts. Apparently a very high degree of immunity is necessary before appreciable amounts of antibodies are excreted through the milk. Older sucklings apparently did not absorb the antibodies in an unchanged condition. The young animals (kids) did not respond, to any extent, in production of hemolysins following subcutaneous injections of foreign blood-cells (sheep).—*Journal of Infectious Diseases* (Chicago)—J. A. S.

Proteolytic Ferments During Pneumonia.—Proteolytic ferments were found by Dick to develop in the blood during pneumonia about the time of crisis. These ferments seem to have special action on pneumococcus protein, and may take part in the mechanism of the crisis.—*Ibid.*—J. A. S.

Traumatic Diseases of the Spinal Cord, Apropos of a Case of Progressive Spinal Amyotrophy from Over-Exertion.—(Erb, *Deutsch. Zeitschr. f. Nervenheilk.*, Bd. XIV, H. 1, 1912, p. 1.)—Professor Erb describes a case where progressive spinal muscular atrophy appears definitely to have ensued on a sudden severe muscular effort.

The patient was a healthy man of 31, a laborer in a vineyard. On the 7th of April, 1910, after having been at work pruning vines for some two hours, he came to branch of unusual thickness (about three c. m. in diameter), and, making a sudden, powerful muscular effort to cut through with a pair of shears, he immediately felt a violent pain in the ball of the right thumb, so severe that he had to stop using the right hand and finish his work that day with his left. The pain continued for some days, but there was no indication of local injury. After treatment with embrocation and otherwise, the symptoms disappeared in a week or two, but the right arm still felt a little weak, and he used his left more than before at his work.

In the course of about two months he noticed that the right hand was becoming definitely weak, and the muscles of the right hand were beginning to waste. The weakening and wasting gradually spread to the forearm, and, in a less degree, to the muscles of the upper arm and shoulder. There were no pains, no paræsthesiæ, no loss of sensibility. When the patient was seen by Erb, in December, 1911, the right arm presented the typical appearance of progressive muscular atrophy. There was marked atrophy of the small hand muscles, of the extensor groups on the forearm, and to a less extent of the flexors and supernator longus; the biceps and brachialis anticus were also atrophic and weak, and in a less degree the triceps; the deltoid also was weak and wasted. There was a good deal of muscular fibrillation, and the arm reflexes on the right side were present, and possibly a little brisker than on the left. The plantar response was flexor on both sides.

There is an excellent critical analysis of the case, and of analogous cases from the literature, and the view is adopted that a sudden, violent muscular strain, followed by ordinary use of the same muscles again, initiated a change which led to the development of a progressive spinal disease.—Van Wart.

Clinical Contributions to the Study of Intracranial Aneurisms.—(Wichern, *Deutsch. Zeitschr. f. Nervenheilk.*, Bd.

XLIV, H. 3, 1912, p. 220.)—An interesting study based on some 22 cases, with pathological examination. Of the 22, 13 were women. Further, 3 of the patients died between the ages of 20 and 29, 6 in each of the fourth, fifth and sixth decennial periods, and 1 was over 60 years.

Five of the 22 cases were undoubtedly cases of a congenital nature, and probably 6 others belonged to this group. There were 2 cases where arteriosclerosis was the underlying condition; 2 of a syphilitic nature, and 4 were certainly, 1 probably, of embolic origin. In every one of the 22 cases the aneurism ruptured; in 15 of them it was clear that there had been more than one leakage from the vessel. The middle cerebral artery was involved eight times, the internal carotid and left posterior inferior cerebellar artery twice, the anterior and posterior communicating, the right and left anterior cerebral, the basilar, the right and left vertebral, the right anterior inferior cerebellar, each once.

A Case of Chronic Hemorrhagic Cerebral Pachymeningitis.—(E. Ciarla, *Riv. di Patol. nerv. e. ment.,* Vol. 17, Fasc. 5, 1912, p. 259.)—In this case, without prodromata, there was gradual onset and development of a complete right hemiplegia, associated with hemianalgesia of the same side, and total aphasia. The case was wrongly diagnosed as one of thrombosis of the left Sylvian artery, whereas, at *postmortem*, a large clot pressing on the left frontal area was found. Some general observations on the diagnosis of similar conditions are appended.

The Inequality of the Pupils in Cerebral Hemiplegia.—(M. Klippel et Mathieu-Pierre Weil, *Semaine médicale,* No. 46, November 13, 1912, p. 541.)—According to the paper, a well-marked and permanent inequality of the pupils occurs in a considerable number (about 40 per cent.) of cases of cerebral hemiplegia. The mechanism of the production of this inequality is explained, in fact, by a reference to the experimental work of electrical stimulation of the cortex.

During the existence of coma, the pupil on the side of the paralysis—that is, on the side opposite to the brain lesion—is the smaller of the two, and after the coma has passed off the pupil on the paralyzed side is the larger of the two. In the former case this is due to contraction of the pupil, owing to an inhibition of function of the injured hemisphere, and in the latter case it is due to an irritation of this hemisphere.—Van Wart.

Intermittent Claudication Associated With Polyneuritis.—(Starker, *Deutsch. Zeitschr., f. Nervenheilk.,* Bd. XLV, H. 1, 1912, p. 52.)—A man of 74, arteriosclerotic, presented the typical symptoms of intermittent claudication in the left leg, and, to a less extent, in the other; in addition, the knee and Achilles jerks were absent; the peroneal and anterior tibial groups were weak and wasted on both sides, and there was a certain diminution of sensibility, with considerable muscular tenderness.

The author thinks the combination of neuritis and intermittent claudication is probably not so rare as might be supposed, and considers the latter occasions the former.

Acute Hemorrhagic Encephalitis.—(Langbein and Oeller, *Ibid,* Bd. XLV, H. 1, 1912, p. 58.)—A 35-year-old patient, previously in perfect health, complained of a severe headache, and in the course of a fortnight became restless, and a few hours later comatose, with pin-point pupils. Tonic convulsions of the upper extremities came on, and at this stage a lumbar puncture revealed a blood-stained fluid under great pressure. Death ensued half an hour later. There was apparently no localizing symptoms or signs, and the case was obscure from the beginning. At the necropsy the vena magna was found thrombosed, as also the venæ cerebri internæ; the optic thalamus on both sides was thickly studded with hemorrhages. The internal capsules similarly were invaded, and there were smaller hemorrhages in the corpus striatum, also in the fornix and roof of the ventricles. From a careful examination of the material the authors conclude that the initial lesion was an acute inflammatory condition of the tela chorioidea and the venous plexuses of the ventricles. The hemorrhages were secondary to the thrombosis of the veins. The actual morbid agent cannot be fixed with certainty; it is supposed that the condition was tuberculous in origin.—Van Wart.

Louisiana State Medical Society Notes.

In Charge of Dr. L. R. DeBuys, Secretary, New Orleans.

Next Meeting: Baton Rouge, April 22-24, 1913.

Organization.—Since his election, last April, our president, Dr. B. A. Ledbetter, has been unusually active in organizing and reorganizing parish societies. Among the parishes reorganized were St. Tammany, Livingston, St. John, St. Charles, Tangipahoa and Washington. All the meetings were very enthusiastic and were reported in due time in the Journal.

The Beauregard Parish Medical Society was organized at De Ridder, on December 3, 1912. Dr. J. D. Foy was elected president and Dr. R. L. McMahon, secretary. The meeting was attended by the following New Orleans physicians: Drs. B. A. Ledbetter, E. Denegre Martin, William H. Seemann, Allan Eustis and Creighton Wellman. It was a representative meeting, fifteen members being enrolled. A banquet was tendered the visiting physicians at night, at which practically every business man of De Ridder was present. Much good was accomplished by this meeting.

Drs. Ledbetter and Lazaro were present at the annual meeting of the St. Landry Parish Medical Society, held January 9, 1913. There was a large attendance. There was a public meeting at night, after which a banquet was given by the society.

Drs. Ledbetter, Wellman and Eustis attended the meeting of the Calcasieu Parish Medical Society, held at Lake Charles, December 4, 1912. They made addresses on timely topics.

The Coming Meeting.—The meeting of the East Baton Rouge Parish Medical Society, February 5, 1913, for the purpose of arranging for the annual meeting of the Louisiana State Medical Society, which will be held in that city, April 22 to 24, 1913, was attended by Dr. Ledbetter. Dr. J. A. Caruthers had already been appointed chairman of the committee on arrangement. General plans for the meeting were made. It was hoped that more details could be given in this number of the Journal, but the data has not been received. Full particulars will be given in the next issue of the Journal. Governor Hall has been chosen as annual orator for 1913.

The following committee on arrangement has been appointed by the East Baton Rouge Parish Medical Society:

Dr. J. A. Caruthers, chairman, with the following sub-committees:

Hotels and Transportation—Drs. Charles McVea, G. W. Sitman, J. J. Robert, J. A. Tucker.

Halls, Meeting Places and Exhibits—Drs. E. O. Powers, W. S. Cushman, A. S. J. Hyde, T. L. Mills, Jr.

Printing, Advertising and Program—Drs. R. C. Kemp, Thomas P. Singletary, Thomas Spec Jones, A. L. East.

Badges and Registration—Drs. R. P. Jones, C. F. Duchein, E. B. Young, P. H. Jones.

Finance—Drs. L. G. Stirling, J. L. Vialet, S. East, J. A. Caruthers.

Executive Committee—Drs. J. A. Caruthers, Charles McVea, R. P. Jones, E. O. Powers, L. G. Stirling and R. C. Kemp.

Conference of State Secretaries.—In accordance with the recommendation of the Committee on Uniform Regulation of Membership, approved by the House of Delegates of the American Medical Association, at the Atlantic City session, in June of 1912, and authorized by the Board of Trustees, a conference of state secretaries was called at the headquarters of the American Medical Association, 535 Dearborn Avenue, Chicago, Wednesday, October 23, 1912, at 10 a. m. The conference was called to order by Dr. Thomas McDavitt, St. Paul, secretary Minnesota State Medical Association, and chairman of the Committee on Uniform Regulation of Membership. Dr. Frederick B. Green, secretary of the committee and of the Council on Health and Public Instruction, acted as secretary of the conference.

Out of a total of forty-nine state secretaries, there were thirty-eight present, among them Dr. L. R. DeBuys, secretary of the Louisiana State Medical Society. After a thorough discussion of the subject, in which every state secretary present participated, the matter was referred to the Committee on Recommendation, which reported as follows:

Report of the Committee on Recommendations.—The Committee on Recommendations herewith submits the following report:

1. We recommend that this conference endorse the plan of having the fiscal year coincide with the calendar year in all parts of the organization. We further recommend that secretaries of all

state associations which have not already adopted this provision bring this matter to the attention of their associations and recommend its adoption.

2. We recommend that constituent state associations adopt provisions making dues in county societies payable on January 1 of each year, and requiring county secretaries to report to state secretaries all members in good standing, together with their per capita assessment for the current year, not later than March 31. State societies desiring to do so may provide a shorter period.

3. The recommendation regarding the third question under discussion is covered by our recommendation of the second.

4. Regarding the pro-rating of dues, we recommend that this be made optional with each local society.

5. Regarding an admission fee for membership we recommend that this be made optional with local societies.

6. While the committee recognizes, as a general principle, that a uniform system of blanks for county and state societies is desirable as soon as practicable, we recommend further consideration of this question at a later conference.

7. We recommend that the House of Delegates of the American Medical Association be asked to consider the advisability of issuing charters to constituent state associations.

8. We recognize the desirability and advantage of a uniform method of transfer, but this system cannot be established until there has been developed a greater uniformity in other details of organization. We therefore recommend that this question be made the subject of discussion at a future conference.

9. The committee recognizes the value of this conference to the state association secretaries, and to the purpose of the organization. It is therefore recommended that future conferences of this character be held.

E. J. Goodwin, Chairman;
Wilfred Haughey,
Perry Bromberg,
William S. Gardner,
Frederick R. Green.

Miscellany.

New Orleans Children to be Subjects of Scientific Study.*

Children in the schools of New Orleans are to be systematically studied by experts with respect to their capacity for education, according to information received at the United States Bureau of Education. Under the terms of a co-operative agreement between the local school board and the administration of Tulane University, children who are for any reason markedly "exceptional" will be selected by the school authorities and referred for individual examination to the psychological laboratory at the Newcomb College of Tulane University, provided the parents give their consent.

A detailed plan of procedure has been devised, in which parent, teacher, sociologist, physician, and psychologist co-operate in examining the children; and a significant feature is the instruction to be given to a number of city teachers and normal school students in school hygiene and in the psychology of abnormal children by professors in Tulane University.

The school teachers will take the first step in the examination. Following a systematic census of all the children, they will select from their classes those who appear to be backward, or victims, or in any way "exceptional." After the consent of the parent is obtained, the parent, with the child, will apply to the superintendent of public schools for his approval, and then to the chief medical inspector of the public schools for physical examination. The experts at the university laboratory will then study the children individually.

Through mental tests, such as the "form board" and the Binet tests, through knowledge of the child's family history and mode of life, obtained by a tactful social worker in close touch with the home, and through any other available source of information they will seek to classify the child according to his mental needs and ability.

After having the pupil under direct observation for some time, the psychologists will be able to determine whether he should attend the regular school, receive special training, or be provided for in some other way. The whole purpose is to study the apparently exceptional child for his own welfare and that of the school and

(*Abstracted from Circular, Jan. 20, 1913, Bureau of Education, Department of the Interior, Washington, D. C.)

community, so that he may develop to the utmost such talents as he has, and if possible become a useful member of society instead of a social loss.

Medical News Items.

National Eugenics Society Formed.—The National Eugenics Society was organized in San Francisco, California, on January 26, 1913. David Starr Jordan, of Leland Stanford (Jr.) University; C. B. Davenport, secretary of the eugenics record office at New York, and F. A. Wolff, of the Bureau of Labor, Washington, are members of the organization. The society is an outgrowth of the eugenics show which just closed in connection with the Denver Stock Show, and had 228 entries.

Chemical Society Meeting.—The sixty-fourth annual meeting of the Louisiana section of the American Chemical Society was held in the conference rooms of the Orleans Parish Medical Society last month. "The Chemistry of Diabetes Mellitus" was the program of a discussion by Dr. Allan Eustis, which was very interesting, because it mentioned the researches on that subject which have occurred in the past five years. The following officers for the year 1913 were elected: Dr. B. P. Caldwell, of Tulane University, president; W. L. Howell, chief of the appraisers' laboratory of the U. S. Custom House, vice-president; J. H. Lewis, Rugby Academy, secretary-treasurer; Dr. A. C. Eustis, member of the executive committee to 1916.

In connection with the above subject, Dr. Wm. E. Fitch is undertaking research on Diabetes Mellitus. As Von Noorden says, "The best treatment for the diabetic is the *food* containing the *greatest* amount of *starch* which the patient can bear without harm." Any physician who reads this and has similar or contrary experience is asked to write to Dr. Fitch at 355 West 145th Street, New York City.

Plan World-Wide Hookworm Fight.—A world-wide campaign for the eradication of hookworm will be one of the first uses to which the $100,000,000 endowment fund of the proposed Rockefeller foundation will be applied, as soon as it receives its charter from Congress. The proposed fight against hookworm is con-

sidered of pressing importance, and in order to wipe out the disease it will be necessary not only to cure the present sufferers, but also to inculcate and diffuse such knowledge of the laws of hygiene and sanitation as will gradually make reinfection impossible. When this is done in this country the work will only be partially accomplished, for unless the hookworm can be eradicated from those points in foreign lands which now, through the ordinary channels of commerce, are constantly distributing infection all over the world, the hookworm is bound to reappear again and again. The campaign for its eradication must, therefore, be made a world campaign—not for altruistic motives merely, but because no one country can be safe until all have been cleared of this pest.

Plague Spots of Paris to be Removed.—A start has been made in the work of demolishing one of the worst plague spots in Europe, the infamous "Hilot Tuberculeux," or Island of flubercu-losis, of Paris. On the sites of these disease-breeding dwellings, in which thousands of the population live in the last degrees of poverty and filth, will soon rise the model tenements with which the city fathers hope to solve some of their most pressing problems. Forty million dollars has been voted for this purpose. It was even claimed by the most enthusiastic that this sum would not be enough and that $200,000,000 would be nearer the mark.

Jewish Hospital to Educate Patients.—An extension social service of the National Jewish Hospital for Consumptives, located at Denver, whereby patients are to be educated and taught healthful trades, was made possible at the annual meeting of the hospital board, when an endowment for the purpose, by Mrs. Herman August, of Cleveland, and Joseph E. Schoenberg, of New York City, was announced. A gift of $50,000 for an infirmary building to permit patients to be retained for longer than a year was made by Samuel Grabfelder, of Philadelphia, president of the hospital.

Revolt on Vaccin.—Twelve hundred pupils have been taken out of the public schools of Berkeley, California, because of an order issued jointly by the Boards of Education and Health compelling immediate vaccination. The order resulted from several cases of smallpox. The matter will be carried into the courts.

Harriman Research Laboratory Incorporated.—A bill incorporating the Harriman Research Laboratory, founded by the widow of the late E. H. Harriman, has been signed by Governor

Sulzer, of New York. The laboratory will devote its time and money to the discovery of cures for cancer and consumption.

War on Cocain.—Several states at the present time are waging a relentless war on the men who sell cocain without a physician's prescription and are leaving nothing undone to stamp out the evil which appears to be gaining a stronger hold than ever before. In New York recently a druggist was sentenced to a year in the penitentiary, and his brother, a dentist, to six months for trying to sell it. It is thought that the whole cocain trade in every state in the Union needs most careful restriction, and a few convictions, such as in New York, will be likely to bring about beneficial effects.

French Hospital in New Orleans.—The French Society of New Orleans announces the renovation of their hospital on St. Ann Street with a reorganization as a hospital for the reception of private patients, as well as for the members of the society. The ordinary sanitarium rates are charged and the institution is to be under the supervision of Dr. George Tusson, for some years physician of the French Society. Dr. M. Souchon is to have charge of the surgical division.

Fee Splitting.—The Western Surgical Association has adopted resolutions covering the practice of fee splitting, essentially fixing a rule forbidding membership to those engaged in the practice and inviting the resignation of those members who do not like the new rule well enough to follow it.

The Medical Society of the Missouri Valley will hold the twenty-fifth semi-annual meeting at the Coates House, Kansas City, Missouri, March 20-21.

Philippine Service Wants Therapeutist. — The United States Civil Service Commission announces a competitive examination for March to fill a vacancy in the position of research assistant in experimental therapeutics in the Bureau of Science in Manila, at a salary of $2,000 a year. The Bureau of Science possesses one of the largest and most favorably known research laboratories in existence, and it is in the immediate vicinity of the Philippine General Hospital.

It will not be necessary for applicants to appear at any place for examination. Their eligibility will be determined upon the evidence furnished in connection with application and examnation

Form B. I. A. 2, concerning their training and the work which they have accomplished.

Applicants must be graduates in medicine, and must show at least one year's post-graduate experience in conducting laboratory research work in experimental therapeutics, or, as equivalent to the year's work, they may submit copies of publications prepared by them, evidencing their ability to carry on original experimental therapeutics work. A person is desired who is especially qualified in research, and it is stated that, for one who is satisfactory, the prospects of promotion are excellent.

Applicants must have reached their eighteenth but not their fortieth birthday on the date of the examination.

Persons who comply with the requirements and desire this examination should at once apply for Form B. I. A. 2 to the United States Civil Service Commission, Washington, D. C.; the secretary of the board of examiners, post office, Boston, Mass,; Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Cal.; custom house, New York, N. Y.; New Orleans, La.; Honolulu, Hawaii; old custom house, St. Louis, Mo.; or to the chairman of the Porto Rican Civil Service Commission, San Juan, P. R. No application will be accepted unless properly executed, including the medical certificate, and filed with the Commission at Washington prior to the hour of closing business on March 10, 1913. In applying for this examination the exact title as given at the head of this announcement should be used in the application, viz., "Assistant in Departmental Therapeutics."

Personals.—The Chicago Medical Society gave a banquet in honor of its expresidents on Wednesday evening, February 12, 1913, Lincoln's birthday.

Dean A. B. Dinwiddie, of Tulane, has returned from Greenwood, Va., where he was called by the serious illness of his mother.

Removals.—Dr. W. N. Elkins, from Spearsville, La., to Junction City, Ark.

Dr. C. Wm. Groetsch, from 1123 Philip Street to 1327 Josephine Street, City.

Dr. Frank P. Vines, from Strong, Ark., to Hot Springs, Ark.

Dr. Ollie G. Coleman, from Coffeeville, Miss., to Batesville, Miss. Miss.

Dr. G. H. Setzler, from Hamburg, Ark., to Crossett, Ark.

Dr. B. J. Larswell, from Portola, Cal., to Alturas, Cal.

Dr. W. A. Love, from 729 Carondelet Street to 1423 Valence Street, City.

Drs. Martin & Martin, from Fidelity Building, St. Louis, to 3700 Morgan Street, St. Louis.

Otto E. Bruder, from 127 North Dearborn Avenue, Chicago, to 122 South Michigan Avenue, Chicago.

Dr. C. L. McCallum, from Mounds, Okla., to Sapulpa, Okla.

Dr. J. E. Henderson, from Alden Bridge, La., to New York.

Dr. Chas. F. Henderson, from General Delivery, Fort Worth, to Box 1273, Fort Worth.

American Journal of Dermatology, from Fidelity Building, St. Louis, to 3700 Morgan Street, St. Louis.

St. Louis Medical and Surgical Journal, from Box 626, to Times Building.

Medical Review, from 214 Fidelity Building, St. Louis, to 3700 Morgan Street.

Merck's Archives, from Box 66, New York, to G. P. O. Box 1443, New York.

Michigan Medical Society, address to Dr. Frederick C. Warnshuis, Secretary-Editor, 91 Monroe Avenue, Grand Rapids, Mich.

Married.—On February 1, 1913, Dr. C. Wm. Groetsch to Miss Buhler, both of this city.

Died.—On February 2, 1913, Mr. L. R. Jauquet, of this city, for many years superintendent of Eye, Ear, Nose and Throat Hospital. He was well known for his many kindly personal qualities, and he will be missed by the medical profession throughout the State.

On January 23, 1913, Dr. James Fleet Booth, a prominent physician of Lake Providence, La.

Panama-Pacific International Exposition, 1915.—Mr. Theodore Hardee has been appointed Chief of the Department of Liberal Arts. He has issued the following notice regarding exhibits in medicine and surgery:

"The Panama-Pacific International Exposition at San Francisco in 1915 will display in a most comprehensive manner the achievements and activities of mankind during the last decade. Live, working exhibits are especially desirable, showing not only actual products, but also models in operation to illustrate the apparatus and methods employed in arriving at the finished article. In the domain of Liberal Arts the exhibits will be notably interesting and significant. The wonderful developments in medicine and surgery make certain a display of the highest importance, and which will be of great benefit to the human family. The mechanical side of surgery will be represented by a complete collection of instruments and appliances used in this important field of human endeavor. There will be shown the most intelligent modern methods employed in the prevention and mitigation of the ills which beset mankind.

"The ground plan for the Palace of Liberal Arts is already arranged. The exhibits must of necessity be selective in character because of the comparative limitation of space which, by reason of wider participation and more extended productivity, will be more restricted than at previous international expositions. This fact will emphasize the advisability of applying for exhibit space as soon as possible.

"We should be pleased to know that you will give serious consideration to the desirability of your participation. In this connection permit me to call your attention to the keen interest manifested by both American exhibitors and foreign Governments, which assures an exposition of the most representative international character. Latin America and the Orient will take very prominent parts. Both Japan and China have already selected sites for their special buildings, and will participate on a scale never approached at any exposition. Twenty-four foreign countries have already accepted the invitation of the President of the United States to participate, and thirty-three States have likewise accepted.

"The opening of the Panama Canal means the development of entirely new avenues of commerce, the extent of which it is impossible to overestimate. The Orient and Latin America should prove

large and profitable markets for the appliances, equipment, etc., of medicine and surgery, and the Universal Exposition at San Francisco in 1915 will afford a rare opportunity to bring these products to their particular notice.

"Blank applications for space, the exhibits classification and other information for the guidance of exhibitors, will be forwarded on request. The opening will be February 20 and the closing day, December 4, 1915."

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Surgery and Diseases of the Mouth and Jaw, by VILRAY PAPIN BLAIR, M. D. C. V. Mosby, St. Louis, Mo.

This volume, just from the press, is one of the best works on the subject yet published. While it is a work essentially for the dentist and dental student, it is most valuable to surgeons, and treats of conditions not taught by the general surgeon, which must be of great value to any one doing oral surgery. The author has attempted, and most successfully, to discuss the subject from the dental as well as from the surgical side, and by so doing has succeeded in giving the profession a valuable treatise on oral surgery. We would commend the chapter on local analgesia as especially valuable to dentists and worthy of close study.

E. D. MARTIN.

Physical Diagnosis, by RICHARD C. CABOT, M. D.

This is the fifth edition of a most excellent work. This book has been revised and reset throughout, and twenty-three new illustrations added, the five plates and 268 figures in the text being a valuable feature. The most important additions are the sections on the phlebogram and the orteriogram, the recasting of the section on blood pressure and the arrythmias, as well as those on neoplasms of the lung and pleura, on sulphrenic abscess and peptic ulcer. Bismuth X-ray examination of the stomach receives more adequate notice in this edition.

DUPAQUIER.

Publications Received.

W. B. SAUNDERS & CO., Philadelphia and London, 1913.

The Principles and Practice of Obstetrics, by Joseph B. De Lee, A. M., M. D.

Obstetrics and Gynecologic Nursing, by Edward P. Davis, A. M., M. D. Fourth edition, thoroughly revised.

Clinical Studies for Nurses, second edition; *Primary Studies for Nurses,* second edition, by Charlotte A. Aikens.

Surgical Clinics of John B. Murphy at Mercy Hospital, Chicago. December, 1912.

Psychanalysis, by A. A. Brill, Ph. B., M. D.

WM. WOOD & CO., New York, 1913.

A Reference Handbook of the Medical Sciences, by various writers. Vol. I, third edition. First and second editions edited by Albert H. Buck, M. D. Third edition completely revised and rewritten and edited by Thomas Lathrop Stedman, A. M., M. D. Complete in eight volumes.

LEA & FEBIGER, Philadelphia and New York, 1913.

Medical Men and the Law, by Hugh Emmett Culbertson.

C. V. MOSBY COMPANY, St. Louis, 1913.

Golden Rules of Surgery, by Augustus Charles Bernays, A. M., M. D.,

M. R. C. S. Second edition, revised and enlarged, by William Thomas Coughlin, M. D.

Handbook of Diseases of Rectum, by Louis J. Hirschman, M. D. Second edition, revised and rewritten.

P. BLAKISTON'S SON & CO., Philadelphia, 1913.

Vaccine Therapy, by R. W. Allen M. D., B. S.

SURGERY PUBLISHING COMPANY, New York, 1912.

Surgical Operations with Local Anesthesia, by Arthur E. Hertzler, M. D.

PAUL B. HOEBER, New York, 1912.

Diet and Hygiene in Diseases of the Skin, by L. Duncan Bulkley, A. M., M. D.

F. A. DAVIS COMPANY, Philadelphia, 1912.

Safeguarding the Special Senses, by Henry O. Reik, M. D.

Health and Longevity Through Rational Diet, by Arnold Lorand.

REBMAN COMPANY, New York, 1913.

The Labyrinth, by Alfred Braun, M. D., and Isidore Friesner, M. D.

Miscellaneous

Index-Catalogue of the Library of the Surgeon-General's office, U. S. A. Second series, Vol. XVII. (Washington Government Printing Office, 1912.)

Report of the Department of Sanitation of the Isthmian Canal Commission for the Month of November, 1912.

Public Health Reports, Nos. 1, 2, 3, 4, 5 and 6. (Washington Government Printing Office, 1912.)

Report of the Medical Director of Hot Springs Reservation to the Secretary of the Interior. (Washington Government Printing Office, 1912.)

Proceedings of the Sixth Annual Meeting of the Association of Life Insurance Presidents. New York, December 5-6, 1912.

Resolutions Adopted by the Tenth Annual Conference of State and Territorial Health Authorities, with the Public Health and Marine Hospital Service, Washington, June 1, 1912. (Washington Government Printing Office, 1912.)

Catalogue of the University of Virginia, 1912-1913.

Annual Report of the Library Committee of the College of Physicians and Surgeons of Philadelphia for the Year 1912.

A Review of the Third Annual Session of the Clinical Congress of the Surgeons of North America, by Samuel W. Kelley, M. D., LL.D.

Reprints.

The Prevalence and Geographic Distribution of Pellagra in the United States, by C. H. Lavinder.

How the United States Public Health Service Can Help in the Eradication of Preventive Diseases in Kentucky, by Joseph Goldberger.

Malarial Fevers: Prevalence and Geographic Distribution in Alabama, by R. H. von Ezdorf.

Outbreak of Gastro-Enteritis and Typhoid Fever Due to Drinking Water on Excursion Steamer, by L. L. Lumsden.

Symposium on the Use of Phylacogens, by various authors.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
For January, 1913.

Cause.	White	Colored	Total
Typhoid Fever	2	2	4
Intermittent Fever (Malarial Cachexia)	------	------	------
Smallpox	------	------	------
Measles	1	------	1
Scarlet Fever	1	------	1
Whooping Cough	------	1	1
Diphtheria and Croup	7	------	7
Influenza	9	9	18
Cholera Nostras	------	------	------
Pyemia and Septicemia	------	------	------
Tuberculosis	40	43	83
Cancer	18	5	23
Rheumatism and Gout	1	1	2
Diabetes	6	1	7
Alcoholism	2	------	2
Encephalitis and Meningitis	3	5	8
Locomotor Ataxia	3	------	3
Congestion, Hemorrhage and Softening of Brain	20	7	27
Paralysis	4	2	6
Convulsions of Infancy	1	------	1
Other Diseases of Infancy	22	6	28
Tetanus	2	3	5
Other Nervous Diseases	3	3	6
Heart Diseases	56	49	105
Bronchitis	5	2	7
Pneumonia and Broncho Pneumonia	26	30	56
Other Respiratory Diseases	3	1	4
Ulcer of Stomach	------	------	------
Other Diseases of the Stomach	5	1	6
Diarrhea, Dysentery and Enteritis	17	8	25
Hernia, Intestinal Obstruction	------	------	------
Cirrhosis of Liver	8	2	10
Other Diseases of the Liver	3	2	5
Simple Peritonitis	------	------	------
Appendicitis	2	1	3
Bright's Disease	43	24	67
Other Genito-Urinary Diseases	7	3	10
Puerperal Diseases	1	2	3
Senile Debility	7	------	7
Suicide	5	1	6
Injuries	5	12	17
All Other Causes	22	18	40
Total	360	244	604

Still-born Children—White, 17; colored, 16; Total, 33.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 15.88; colored, 28.99; Total, 19.43.

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

Mean atmospheric pressure.....30.14
Mean temperature.....59.9
Total precipitation.....5.71 inches
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

VOL. LXV. APRIL, 1913. No. 10

Original Articles.

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

The Control of Diphtheria.*

By WILLIAM H. SEEMANN, M. D., New Orleans.

Although Aretius of Coppadocia, as early as fifty years after the birth of the Christian era, regarded diphtheria as a distinct clinical entity, and many subsequent writers and historians referred to it, we still are confronted, as much as ever, with the problem of its control.

The clinical nature of diphtheria was well understood and described by Galen and his pupils. As you well know, however, the credit for separating this disease from other angina is generally accorded to Brettoneau. His ablest exponent was Trousseau, whose observations on paralyses as sequelæ of diphtheria, added to his corroboration of the findings of Brettoneau, focused the minds of the medical world on the individuality of this malady. A patient and persistent search for the cause of the disease was finally rewarded in 1883 by Kleb's discovery of a bacillus which he recorded as being constantly found in diphtheritic exudates. Lœffler, one year later, was able to definitely announce that he had been able to successfully cultivate the bacillus described by Klebs; that he had

* Read before the Orleans Parish Medical Society, January 27, 1913.

subjected it to the test prescribed by Koch, and that the bacillus in question could be accepted as the undoubted etiological factor in diphtheria. His description and his method of culture and staining of the bacillus have scarcely been improved upon since. Naturally, the discovery and study of the Klebs-Lœffler bacillus led to further benefits to humanity with regard to diphtheria, and six years later Behring's antitoxic treatment was recognized as valuable in the disease. Since that time the value of diphtheria antitoxin has been more and more appreciated, as its use became better understood; and this is not surprising, when we recall that the mortality in some hospitals, which had been as high as 58 per cent before the antitoxin treatment was instituted, dropped to as low as 5 per cent, as a result of its institution.

Bayeux, in his celebrated monograph on diphtheria, calls attention to the fact in an analysis of 230,000 cases reported from all parts of the world; the death rate in that disease, which before the antitoxin treatment averaged 55 per cent, dropped to 16 per cent.

I mention these few historical and well-known facts here at the expense of the time allotted me, because I feel that they are important in studying the control of diphtheria epidemics.

Every added device or treatment furnished by the ingenuity of man to preserve man from a danger or to snatch him from it, has an irresistible tendency to increase man's carelessness and disregard of that particular danger.

The advent of antitoxin and its resulting effect of diminishing the mortality rate in diphtheria have led the public at large to regard diphtheria as a somewhat negligible danger which children especially must expect to encounter.

This state of mind exists equally well with regard to other preventable diseases, against which some means of immunization has been invented. An appreciation of this very frame of the public mind led the Public Health service not to encourage the use of antiplague vaccin in Porto Rico. The officials well knew that the sluggish Porto Rican, happy in the thought of an easily acquired immunity, would patiently submit to an injection or two of vaccin and then retire to his accustomed filth, satisfied and placid. The obvious result would be that the source of infection would not be reached and the disease, though temporarily controlled, would be potentially active and might at any time break out with a new and stronger virulence.

The average parent of a diphtheritic child, or for that matter, any other child, is primarily and usually solely concerned in the welfare of that particular child, and when that child is ill would wish to bring down on the unknown purveyor of its trouble all the anathema which an anguished brain could devise. Let the child recover, and immediately the picture changes. The realization of the fact that the child is but one link in a chain of infection, which, if unbroken, will, like the brook of Tennyson, go on forever, seems not to enter the parent's mind. Her or his one thought is that it is a shame to submit their child to the drastic sanitary regulations. Unfortunately, in this sadly selfish view, the parents of convalescent children are sometimes encouraged by the attendant in charge.

The avenues through which it is possible for diphtheria to spread are numerously mentioned by writers. There is one source of infection, however, which in my opinion so far overshadows the rest as to be for ordinary purposes the main and chief object of consideration by sanitarians, physicians and the public. This source is personal contact with a human bacillus carrier. This contact may be direct or indirect. I mean in the former case the inspiring of air polluted by sneezing, coughing or spitting carriers. Kissing is a fruitful source of direct infection.

Indirectly, the use of utensils, the handling of clothing, the eating of food or the use of toys, etc., which have been contaminated by a bacillus carrier may easily be the source of infection.

Milk has been the conveying medium of a number of diphtheria outbreaks. Out of sixteen epidemics reported on and analysed by Kohler he traced the probable source of thirteen to milk.

In the outbreak of diphtheria in New Orleans last fall, systematic examination of the milk supply was made. Out of nearly two hundred samples submitted, marked only by number, I isolated from six specimens the Klebs-Lœffler bacillus. These bacteria were very virulent for guinea pigs, and answered all cultural requirements.

Investigation showed that all six samples came from the same source, and inquiry brought out the fact that the wife of the dairyman had suffered from an attack of "sore throat" the week previous.

It is quite possible that this source of infection may have been one of the causes of that outbreak. I am convinced, however, that personal contact, brought about by the opening of the school term and the congregation of individuals in the schools and at a large

circus, which was showing here at that time, were the more fruitful avenues of contagion.

Many writers still insist on dampness, defective drainage, etc., as being considered in the etiology of diphtheria. They may be reckoned with only in so far as they affect the general resistance of persons, and have no more bearing on diphtheria than on any other disease, except that insofar as catarrhal conditions of the upper respiratory tract make infection more easy of accomplishment, and this catarrhal condition is favored by the foresaid conditions.

In this connection, I might say, that Terrien, who has investigated the subject thoroughly, has been able to announce authoritatively, what was familiar to and accepted by many of us, that severe persistent coryza in children, especially those with the accompanying excoriations, are most often diphtheritic, and although trivial of themselves, may result in malignant cases, either in the same individual or others.

It is obvious, of course, that the control of diphtheria epidemics or sporadic cases rests solely in the destruction of the cause. If I may be pardoned by Dr. Dyer, for paraphrasing his epigrammatic slogan used in our recent anti-plague campaign, I would say:

No carrier, no bacilli,
No bacilli, no diphtheria.

Our entire campaign, therefore, must be centered on the destruction of the bacillus.

Time does not permit, nor necessity demand, an extensive consideration, at this time, of the Klebs-Lœffler bacillus and its biologic characteristics. I will call attention, however, that, for practical purposes, it seems agreed as a consensus of opinion, that the Klebs-Lœffler bacillus may be regarded as almost a strictly human parasite. This will then narrow our principal activities to living human beings.

Man and some domestic animals, principally the cat, are susceptible to the infection of this organism. It has on rare occasions been present in birds, chickens, dogs and other animals.

Obviously, to prevent the spread of diphtheria epidemics it is absolutely necessary that the throats and noses of patients, ill with a suspicious disease, as well as the noses and throats of their associates, must be examined bacteriologically, if we would prevent the spread of disease.

To make this method of control superlatively efficient, cultures

should be made of all contacts at the beginning, as well as at the discharge of all cases.

The isolation of the patient and the attendants is imperative. The placarding of the premises, and the use of disinfectants are familiar and need no review.

The use of antiseptics in the nose and throat applied directly by swab, and at not too frequent intervals, is beneficial. *The use of strong antiseptics or caustics, I believe injudicious and even harmful,* as they really increase the local destruction of tissue, and often interfere with nature's efforts.

The diphtheria bacillus may be found in the nose, throat and ear. Diphtheritic inflammations of the eye, vagina and of wounds are on record, but are objects of medical curiosity more than sanitary interest.

In all cases of diphtheria occuring in home or institution, a systematic examination of the noses and throats of persons therein should be made. Terrien advises that cultures should be made from the throat and nares, a separate swab being used for each nostril, and introduced well into the nares.

As a prophylactic the use of anti-diphtheritic serum has proven efficacious and is much in use. Blunman in a large series of cases found nevertheless that 5.5 per cent of children injected with 500 or 600 units, as a prophylactic, developed diphtheria, and he has been advocating the use of diphtheria toxin introduced well up in the nostril on a pledget of cotton for one hour for ten consecutive days, one or the other nostril being used alternately. By this means he claims to build up an active immunity, a claim apparently not groundless. The implantation of bacteria supposedly inimical to the growth of the Klebs-Lœffler, has many advocates, but not very brilliant results have been shown so far.

As a prophylactic wash I believe peroxide of hydrogen or permanganate of potash solution, used warm, to be of more avail.

The thermal death point of the Klebs-Lœffler bacilli is about 50 deg. C. and this has led some French clinicians to the use of superheated rooms in the treatment of diphtheria. I believe, however, that this treatment verges dangerously close to the *"reductio ad absurdum."*

I do believe, however, that hot gargles or hot sprays are more efficacious, for many reasons.

One of the great problems in the handling of epidemics is to reconcile the public mind to the fact that the so-called "well"

carrier is as potentially dangerous as the carrier "sick in bed," only more so on account of his greater freedom.

I have analyzed the records of 879 positive cases of diphtheria which were controlled by the City Board of Health laboratory during the past three years, and I found that the average time at which the bacilli disappear from the throat to be about nine days. One case remained infected for fifty-one days, one for forty-two days, and so on. The figures are too numerous to quote. I mention them to show the absolute necessity of control over convalescents.

Dr. Angus MacDonald reports a record of diphtheria carriers in the *Lancet* of March 25, 1911. Of ninety cases reported, one remained infective for a period of fifteen weeks, one for eight months, and the bacilli still positive and virulent, one for thirteen weeks, five for six weeks, and so on.

In closing I beg leave to quote his summing up of the lesson derived from his study.

"1. Carriers are found at all ages and of either sex.

"2. The previous carrier period cannot be ascertained, but may in some cases be inferred.

"3. Nor can it be said in many cases that one case was derived from another—that is, the carrier found may have given the disease to those around, or may only have just received it.

"4. The presence or absence of an obvious pathological condition is no criterion of the fact of a carrier or the length of carrier life or its virulence.

"5. The length of carrier life seems to have no effect on virulence; bacilli have been demonstrated to be virulent after four and eight months in the ear and nose of different individuals.

"6. Carriers are found among those most intimately associated with other carriers or cases; at home between mother (nurse) and child, and children who play together; at school the carriers found are few, and always closely associated (in play, and not necessarily in schoolroom proximity) with some other carrier or case.

"7. The control of diphtheria depends (assuming control of the case) on the control of the carrier.

"8. The carrier should be notified as a case of diphtheria, no matter of what age or sex, and observation should be maintained until satisfactory demonstration of the disappearance of the bacillus diphtheriæ.

"9. As everything points to the conclusion that the bacillus diphtheriæ is essentially a human parasite (a saprophytic existence is not evident, the transference from animal to human is at any rate rare, and many cases of apparent transports by milk and other agencies are manifestly from human contact), a determined attack on the lines of thorough bacteriological investigation should have no difficulty in stamping out diphtheria altogether from the land.

"Evidence points also to the slow, inevitable, mechanical distribution of the disease which persists endemic in the undiscovered carriers. Endemicity depends entirely upon the number and nature of the carrier; the headway that has been attained before preventive measures have been effectually used, and upon various sociological factors more or less under the control of the authorities. The invocation of miracles, of meteorological factors, local and universal; of special intensity of the virus, *et omne ignotum*, which is the commonplace authority to-day, might surely give way to the recognition of simple, natural open-eye causation."

Nasal Diphtheria in the Public Schools.*

By EDMUND MOSS, M. D., New Orleans.

Having just passed through our late outbreak of diphtheria and having supervision over 45,000 children, there was one phase of this disease that struck me very forcibly, namely, the prevalence (undetected as a rule) of the catarrhal form of nasal diphtheria. While Buffalo Bill's Show, the milk supply, meat, etc., were all coming in for their share of condemnation, I was wondering if the above type of infection (catarrhal) was not the offender. Our yearly visitors, influenza, grip, coryzas, etc., had just arrived, and the schools had just opened. Here we have a combination of suitable media and a fine mixing ground. Is any better setting needed for an outbreak of contagious nature?

TABLE I.

DIVIDING INTO QUARTERS FROM JANUARY 1, 1902, TO DECEMBER 31, 1911.

	DIPHTHERIA.			SCARLATINA.			MEASLES.		
	No. of Cases.	Deaths.	Per Cent.	No. of Cases.	Deaths.	Per Cent.	No. of Cases.	Deaths.	Per Cent.
1902									
First quarter	50		...	117		...	...	...	...
Second quarter ..	32		...	70		..	...	...	...
Third quarter	44		...	23		...	...	...	...
Fourth quarter ...	121	44	17.1	00	14	...	...	...	...
1903.									
First quarter	86		...	36		...	...	...	...
Second quarter ...	40		...	19		...	...	...	...
Third quarter	47		...	13		...	...	...	...
Fourth quarter ...	111	35	12.32	43	8	...	...	...	...
1904.									
First quarter	85		...	19		...	...	...	...
Second quarter ...	51		...	18		...	...	...	...
Third quarter	48		...	17		...	...	...	...
Fourth quarter ...	154	45	13.3	22	2	...	...	...	...
1905.									
First quarter	150		...	33		...	...	...	...
Second quarter ...	63		...	22		...	...	...	...
Third quarter	73		...	20		...	...	...	...
Fourth quarter ...	136	42	...	29	8	...	...	...	...
1906.									
First quarter	104		...	48		...	...	...	...
Second quarter ...	51		...	77		...	...	...	...
Third quarter	75		...	32		...	...	...	...
Fourth quarter ...	204	46	...	59	14	...	...	...	...

* Read before the Orleans Parish Medical Society, January 27, 1913.

	Diphtheria.			Scarlatina.			Measles.		
	No. of Cases.	Deaths.	Per Cent.	No. of Cases.	Deaths.	Per Cent.	No. of Cases.	Deaths.	Per Cent.
1907.									
First quarter	161		...	58		...	...	...	...
Second quarter ...	74		...	36		...	...	...	...
Third quarter	63		...	47		...	...	...	...
Fourth quarter ...	225	37	...	99	4	...	...	...	...
1908.									
First quarter	146		...	184		...	...	...	...
Second quarter ...	106		...	503		...	...	...	...
Third quarter	133		...	188		...	...	...	...
Fourth quarter ...	218	48	...	215	25	...	...	...	...
1909.									
First quarter	73		...	684		...			
Second quarter ...	77		...	836		...	10		...
Third quarter	72		...	201		...	7		...
Fourth quarter ...	159	25	...	166	62	...	55	1	...
1910.									
First quarter	229		...	352		...	869		...
Second quarter ...	101		...	279		...	1427		...
Third quarter	75		...	51		...	86		...
Fourth quarter ...	203	37	...	310	28	...	174	72	...
1911.									
First quarter	184		...	111		...	1204		...
Second quarter ...	71		...	96		...	1036		...
Third quarter	134		...	77		...	92		...
Fourth quarter ...	205	40	...	102	4	...	14	40	...
1912.									
First quarter	64		...	...	...	...	...	...	...
Second quarter ...	54		...	...	...	...	...	...	...
Third quarter	69		...	...	...	...	...	...	...
Fourth quarter ...	885	58	6.70	...	...	...	...	...	...

The chart will show you that in the first and fourth quarters of the year there is usually an increase of diphtheria and other contagious diseases. This is not only true here, but in other cities as well. After running our usual course as to the number of cases of this disease, for the past ten years, on or about October 9 of last year, we were suddenly confronted by an outbreak promising to become epidemic. One day that I recall, over 90 cases were reported. In October, 547; November, 197, and December, 141, making a total for three months of 885 cases. In the same months among the public school children having an attendance of 42,000, we had in October, 190; November, 60; December, 38.

This infection was not localized, but as my photograph will show, extended from Carrollton to the Barracks and from the river to the woods. Although urged to do so by a citizens' committee, I refused to close all the schools—taking the stand that with the exception of those districts that were badly infected the schools were better opened if under close medical supervision, thereby enabling us to pick up those unrecognized nasal and catarrhal cases which otherwise would act as carriers, spreading the disease broadcast in the closely-settled districts from which our pupils chiefly come. In other words, an outbreak of any contagious disease can be stamped out without closing and making the public schools the scapegoat.

Over seventy inspections of schools were made in the month of October. Averaging 400 children to the school, you will see that over 28,000 children were inspected. In these inspections any suspicious nose or throat was cultured and the pupil excluded until a laboratory report was received. In this way we picked up fifteen tonsilar and eleven nasal cases of diphtheria from twelve schools, these schools being in different parts of the city. Let me mention one or two specific cases.

In the W. O. Rogers School we had two cases reported from one class-room. All the children were inspected and one nasal case found in the room from which the two previous cases were reported. No cases since.

In the Sophie B. Wright High School, with over 600 pupils, we had ten cases in the first twenty days of October. On October 20 the throats of all pupils were examined, several cultures were taken, one nasal proving positive. The school was closed for three days and fumigated. In this school we had one case in November and none in December.

In the last week of October, 1910, three cases were reported from McDonough No. 9 and three more cases following on November 1-3. On November 4 the pupils were examined and 48 cultures taken. Out of this number we found 13 positive nasal and five positive tonsilar cases of diphtheria. In all we had 31 cases in that school in November and none in December.

One child presented himself at my office at the School Board for a vaccination certificate. This child had been absent from school for two weeks, the mother, who was with the child, saying that he had been suffering with nose trouble and was then on her way to a specialist to get a growth removed. Inspection showed membrane

almost protruding from right nostril. This child had been under the supervision of a physician for ten days.

From the above I deduce the following: That the words diphtheria and membrane have been so closely associated in the past that it is a hard matter for the clinician to grasp the one without the other. That the time has come for separation of these Siamese twins and for a closer supervision of all catarrhal conditions of the nose and throat, especially as regards taking cultures. A running nose with excoriations of nose or lip, in my opinion, is sufficient grounds for isolation and taking of cultures. It is these unrecognized cases that at the beginning of the school session mix with the other children, and by direct infection, or by spitting on the floor, contaminate the dust which will be inhaled by some unfortunate, and so spread diphtheria in our city.

And, gentlemen, though I blush to acknowledge it, our schools are still 100 years behind the time in that they still allow dry sweeping. I have done my best to abolish this most dangerous custom, but up to the present my efforts have been without avail.

There are three principal causes in my opinion for the spread of diphtheria in our midst

1st.—The failure of the physician to look for and recognize the nasal and catarrhal forms of diphtheria.

2nd.—The lax manner in which the house *quarantine* is kept. This is not the fault of the Board of Health, but the physician in attendance.

3rd.—The custom of dry sweeping in the public schools.

The Heart in Diphtheria.*

By JOHN B. ELLIOTT, Jr., M. D., New Orleans.

I think that we may discuss the effect of the toxin of diphtheria on the heart under four heads, classified symptomatically:

1st—Those showing symptoms of weak heart, by faintiness, pallor, mild attacks of vertigo, bradycardia or tachycardia, inability to do any work for months after their attack; all this coming either after a mild or severe primary infection.

2nd—Those showing severe collapse from the first and who die in four or five days with rapid pulse, convulsions and paralysis of muscle and heart.

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3rd—Those who after a mild or severe primary infection seem to recover for three or four days and then begin to show signs of some paralysis in palate or pharynx, slow pulse, vomiting, dyspnoea, epigastric pain, irregular respiration, and die suddenly.

4th—Those who four or five weeks after seemingly complete recovery from the attack of diphtheria, drop dead after some slight exertion.

Studied pathologically we have only two main divisions to make, those due to degeneration of the myocardium and those due to degeneration of the pneumogastric nerve.

As an example of this first class, I might report a case I saw in my office about two weeks ago. The patient was a man of about 60 years of age, who stated that he had had an attack of diphtheria during the last week of November, that he had gotten up on the sixth day and was out of his room by the tenth day, but was too weak to resume work for some ten days more. He complains now, about forty days after the primary attack, of feeling out of breath on the slightest exertion and weak in the legs; he was rather pale, his pulse pressure was 110, pulse about 60 per minute, his heart slightly enlarged to the left, urine normal both chemically and microscopically, liver not enlarged. Evidently a case where there had been a mild degeneration in the myocardium which had not yet regained its tone, and under strychnine and definite hours of rest he soon was back to his normal health.

Of the second class I have only seen one example since the advent of antitoxin: A child of three years, whose attack commenced rather suddenly with an enormous involvment of the tonsils and whole fauces, intense toxemia from the first day, and who in spite of large doses of antitoxin became cyanotic, had a terrific tachycardia, and died on the fifth day with all signs of cardiac and respiratory paralysis.

Of the third class, one of my confreses told me of a case just a few days ago. He saw the child on the third or fourth day of the disease, and promptly recognizing the trouble, at once gave large doses of antitoxin, and in four days the child seemed clear of membrane in the throat, and all symptoms pointed to a rapid convalescense. For two days more the child improved rapidly and was not seen. On calling on the third day he noticed that the pulse was down to forty and very weak, though the child complained of no pain; on the contrary wanted to get up. In spite of heroic treat-

ment the pulse continued to grow weaker, and the third day after the child died without any symptoms of vomiting, only slow pulse and irregular respiration.

Of the fourth class I luckily have never seen a case where death followed, but did attend a case where a severe dilatation of the heart took place some eight weeks after the primary attack, and in which the heart did not regain its normal tone for at least two years, the patient being a semi-invalid for a period of a year or more.

In reviewing the literature on the pathology of the heart in diphtheria, one is struck with the fact that the older works seemed to put most of the blame for these fatal cases on the nerve involvment, while the more modern works place the whole trouble in the degeneration of the myocardium; though J. J. Thomas, who is quoted by McCollom, has made a study of the nerve degeneration in twenty-five cases, and does not think that this nerve degeneration as a cause of death has been sufficiently emphasized by the profession at large. The majority of the German authorities, headed by Romberg, think that had the cases of sudden so-called cardiac paralyses been observed more carefully from the start, the signs of myocardial degeneration would have been found.

The lesson to be learned by us from clinical histories and post mortems is, that we must be always on guard even in the mildest cases, and not depend on antitoxin to do everything; that we should examine the heart daily in every case, taking the blood pressure when possible and insisting on the patient staying in bed until the pulse rate and pressure have almost gone to the normal. That the advent of antitoxin has increased the liability to heart failure is absurd and can be positively refuted by the statistics of any fairly large hospital.

To summarize: The main effect on the heart of the diphtheria toxin is an acute myocardial degeneration, both fatty and interstitial; a degeneration of the pneumogastric nerve may occur; the main symptoms that occur demanding attention to the heart are tachycardia or bradycardia, dyspoea, epigastric pain, "but above all beware of gallop rhythm and late vomiting." The treatment, first and last, is rest; digitalis may do harm; strychnine may do good. When we say rest we mean flat in bed, with bed pan and urinal in use, and no exertion whatsoever.

Anaphylaxis--Report of a Case.*

By M. J. MAGRUDER, M. D., New Orleans.

With the advent of serum therapy in diphtheria this disease was robbed of its terrors to a very great extent, but it was not long before occasional bad results were observed to follow its use. Urticaria was the most common form of trouble, and while this did not cause alarm it often produced great discomfort and annoyance. There have been reported, however, rare cases where there were very alarming symptoms following its use, and even death occuring within the hour.

These cases have been termed anaphylaxis, but as yet this is a subject about which little is known.

The second injection of anti-diphtheritic serum used here was given one of my patients, since which time I have used it in all of my cases, with the result that during the past fourteen years I have treated several hundred cases without a single death, and until recently had used it without the slightest hesitation, giving but little thought to the question of anaphylaxis.

I hope the case which I am about to report may serve to impress upon you the possible danger and spare you a similar experience.

October 8, 1912, I was called to see two little girls suffering from diphtheria, neither having been ill more than 24 hours. Temperature 104°, rapid pulse and both tonsils covered with membrane, in one case extending over the uvula, portions of the soft palate and pharynx. As both manifested severe symptoms, I administered to each 7,500 units of antitoxin as an initial dose.

About this time an elder brother appeared on the scene and asked to have his throat examined as it was paining him and thought he had fever. Examination revealed diphtheritic patches on tonsils and temperature 103°. He had just returned from an automobile ride, having driven the machine himself.

The boy was 17 years old, six feet high and weighed about 150 pounds. I ordered him to remove his clothing and go to bed, and then injected into the cellular tissue of the gluteal region 5,000 units of serum, put up by one of the most reliable manufacturers and bearing the same date as that given a few minutes earlier to his little sisters. Within eight or ten minutes he complained of feeling badly, his eye-lids began to swell, urticaria appeared over face, shoulders and hips, vomited, began blowing his nose, said he

* Read before the Orleans Parish Medical Society, January 27, 1913.

"couldn't breathe, his throat was closing, felt as if he was going to burst open, believed he was dying."

His pulse became extremely rapid and so weak that it could not be counted. Within fifteen minutes after the serum had been administered his lide were so swollen that eyes could not be opened, lips and entire face decidedly swollen and a general urticaria. By this time patient had lapsed into a semi-stupor, pulse could not be detected, respiration slow and shallow, and when asked how he felt, feebly replied he "didn't know." Being without a hypodermic syringe, I 'phoned Dr. Randolph Lyons, who resided only a few doors away, and immediately came to my assistance. Atropin, strychnia, digitalin, and brandy were given sub-cutaneously. Patient was now deeply cyanosed and appeared as if he would die. This condition continued for about two hours. After about three hours patient began to improve and made an uneventful recovery, except for a very slow pulse appearing on the second day and continuing for several days, ranging from 45 to 50 beats per minute.

This boy had been in previous good health, no serum had been used before, had not suffered from asthma or hay fever, nor had his parents, though his mother is of a rather nervous temperament.

Two days later I discovered his father had diphtheria, and being of a similar build and temperament, I was in a quandary, but determined to administer the serum, but very much more cautiously. I injected about five or ten minims, then waited thirty minutes, and as there had been no reaction, gave the entire dose of 5,000 units, which was repeated the following day. While there was no violent reaction there did appear within a few hours after the first dose a pronounced urticaria, which became very much worse after the second injection; one of the worst cases I have ever seen.

His pulse also became very slow, remaining below 50 per minute for several days.

While I hope the report of this harrowing experience through which I have had to pass will not deter any one from using serum in cases of diphtheria (for I have implicit confidence in it), I do hope it will place you on your guard.

In conclusion I would suggest that when serum is to be used the physician have with him a hypodermic and tablets necessary for any emergency, and that he would not under any circumstances leave a patient to whom he has administered serum within thirty minutes after its use, and that serum never be used in doubtful

cases, as has frequently been done as a precaution, nor should it ever be given as a prophylactic, for it is a well-established fact that most of the bad results following the use of serums have occured in persons to whom it had been administered on a previous occasion. I do not, however, feel that one should refrain from using antitoxin when it is needed, merely because it had been given before. I have since my experince with the case just reported made use of it in such a case, but I first injected a few minims, then, after waiting half an hour, gave the full dose, and this is the plan I would advise where anaphylaxis is feared.

Diphtheria of the Ear and Nasopharynx.*

By WILLIAM SCHEPPEGRELL, A. M., M. D., New Orleans, La.

Diphtheria of the external auditory canal, as a primary affection, is rare, but is sometimes met with especially in anemic and debilitated children, during epidemics of diphtheria. The site of the disease is usually some abrasion of the canal into which the infection has been carried with the fingers. As a secondary infection, the path is usually from the middle ear in pharyngeal or nasopharyngeal diphtheria, especially when accompanied with scarlet fever.

Examination with the head mirror shows the usual grayish diphtheritic membrane removable with difficulty and usually followed by bleeding, and containing the diphtheria bacilli. It is accompanied by a purulent secretion, general inflammation of the ear and surrounding parts and infection of the pre-auricular and cervical glands.

The prognosis of diphtheria limited to the auricular canal is favorable. The treatment consists of irrigation with a mild warm solution of biborate of soda administered by a fountain syringe with little pressure, so as to avoid pressure on the drum and premature loosening of the membrane. Antitoxin should be administered as in other forms of the disease.

Diphtheria of the middle ear is a serious form of the disease, the channel of the infection being nearly always by way of the Eustachian tube and nasopharynx. Rarely the middle ear is infected by way of the external auricular canal, and usually in such cases there is already a perforation of the drum, the exposed membrane of the middle ear facilitating the infection.

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Diphtheritic inflammation of the middle ear is more common when this disease is associated with scarlet fever, the discharge in such cases containing not only the Klebs-Lœffler bacilli, but also streptococci, and sometimes also the staphylococci and diplococci.

This form of diphtheria is very serious as regards hearing, the perforation usually resulting being of large size and the otorrhoea with tendency to recurrence. Where the labyrinth is involved, serious and permanent disturbances of the hearing follow, and, when the mastoid cells are infected, prompt surgical interference alone will prevent a fatal termination.

Every case of diphtheria in which there are ear symptoms should be carefully examined, and if the ear cavity is filled with secretions and the drum bulging, a free incision should be made to prevent extension into the mastoid cells and endangering the life of the patient. Disturbances of the auditory apparatus following diphtheria in which the ear was not directly involved, may be due to an obstruction of the Eustachian tube or to a post-diphtheritic paralysis of the palato-tubal dilator muscles.

The difficulty of recognizing primary nasopharyngeal diphtheria is a source of danger to the patient, as the proper treatment is not at once commenced, and a menace to the community through the danger of spreading the unrecognized infection. When a child complains of earache and the nose is obstructed, but without discharge, and the patient presents other symptoms of diphtheria, such as swelling of the cervical glands, depression and pallor, and especially at a time when diphtheria is prevalent, or when the child has been exposed to such an infection, nasopharyngeal diphtheria should be suspected.

When this is the case, some one familiar with the use of the rhinoscopic mirror should be called in, and, when this is not practicable, a culture should be made by passing a cotton-covered bent applicator behind the soft palate into the nasopharynx. In some cases a small straight applicator may be passed by way of the nostrils.

Nasopharyngeal diphtheria in the early stage fails to show the Klebs-Lœffler bacillis in the culture as usually made from the throat, and in mild cases they may not be found here at any time. Where, however, there is extensive spread of the membrane, the diphtheria bacilli may also be found in the lower pharynx, but the delay in administering the antitoxin resulting from this may have

a serious influence on the prognosis. The most frequent site of the membrane in nasopharyngeal diphtheria is on the pharyngeal tonsil, and when this is hypertrophied, it favors rapid spread of the disease, infection of the lymphatic glands and involvement of the ear and adjoining structures.

I have examined the statistics of our local Board of Health and have not been able to find totals of the numbers of cases which proved to be diphtheria, in which the absence of membrane was reported. In the report of the Indiana State Board of Health, however, *(Journal of the American Medical Association,* Jan. 7, 1911), 16 per cent of the cases reported as being without membrane or exudate, were found to contain diphtheria bacilli. From my own experience in such cases, it is my belief that a large majority of the cases reported were nasopharyngeal diphtheria, in which the membrane could not be seen except by means of a rhinoscopic mirror. This does not include the milder cases of nasopharyngeal diphtheria in which the usual culture would be negative and in which no membrane is visible on direct examination.

The prognosis of nasopharyngeal diphtheria is more serious than the usual pharyngeal variety on account of the danger of involving the middle ear by way of the Eustachian tube and thence to the mastoid and meninges.

Secondary nasopharyngeal diphtheria, as an extension from the lower pharynx or larynx, is a more familiar type of the disease. The frequency of such involvement, according to statistics quoted by Lennox Browne of 1,000 cases of diphtheria, is 16½ per cent.

The important part of the treatment consists in the prompt administration of antitoxin, and when the disease has been promptly recognized and the serum injected the first and even the second day of the disease, the results are excellent. Where the patient is old enough to make it practicable, the nasopharynx should be irrigated with a warm sterilized one-half per cent saline solution to which one per cent of liquor antisepticus (U. S. P.) has been added. This may be applied by means of a glass Birmingham douche, or, preferably, from a small porcelain-lined bowl from which the water is drawn through the nostril into the nasopharynx. The patient should be warned against blowing the nose forcibly afterwards to avoid irritation of the Eustachian tube.

In illustration of these forms, I will select two typical cases from those occurring recently in my own practice. The first patient suf-

fered from faucial diphtheria with the usual symptoms for which 3,000 units of antitoxin were given, the membranes disappearing on the third day. A week later a culture was made and the bacteriological department reported the presence of the diphtheria bacilli. Three days later another culture was made and again the report was positive. The following day the patient had a recurrence of all the symptoms of diphtheria, but without any membrane showing in the throat. A rhinoscopic examination revealed extensive involvement of the nasopharynx with the diphtheria membrane, the exudate being on the pharyngeal tonsil and on both the lateral walls. A second dose of antitoxin was injected at once and three days later the membrane had disappeared and a week later the bacteriological department reported a negative culture. When seen these membranes had already advanced close to the Eustachian tube on both sides and the prompt injection of the antitoxin probably prevented serious ear complications.

This case presented marked anaphalaxis following the second injection of antitoxin, the effects, however, passing off quickly.

The second case was one of primary nasopharyngeal diphtheria, which occurred recently. A cotton planter of Mississippi had had a case of faucial diphtheria in his family a few weeks previously, when his oldest son, who had been exposed to the disease, became ill, presenting the usual symptoms of diphtheria. The family physician was called in, but could find no membrane in the throat, but, nevertheless, made a culture which was reported negative. As the symptoms persisted, the physician requested that I be called into the case. As it was difficult for me to leave, I sent my assistant, Dr. Fred. Waide, who, upon examining the patient, found a well-marked diphtheritic membrane in the nasopharynx over the pharyngeal tonsil and vault. Antitoxin was at once injected, the response being marked and rapid, so that three days later Dr. Waide was enabled to leave the case with the nasopharynx free of membrane.

The danger in cases of primary diphtheria of the nasopharynx is not only that the difficulty, which it presents for diagnosis, makes it serious for the patient by involvement of adjoining structures, which could be prevented by early recognition and the prompt use of antitoxin, but also the liability of infecting others on account of the disease not being recognized. I believe that this is one of the causes that, in spite of the activity of the Health Officers, many

epidemics of diphtheria persist so long. It would be advisable, therefore, in cases in which the symptoms suggest diphtheria and there is an apparent absence of membrane and the bacteriologic report is negative, that the Boards of Health request a second culture from the nasopharynx in the manner described or that some one be called in to make a rhinoscopic examination of the patient.

The Use of Corrective Plaster Jackets in the Treatment of Scoliosis.*

By E. S. HATCH, M. D., New Orleans.

Scoliosis is a very broad subject and one on which much has been written both in this country and abroad. It is, I believe, a condition in which the general practitioner should take a very active interest because it is to him that these cases first come for treatment. In fact he is often asked to examine a child for some other trouble and simply finds the Scoliotic condition as a result of his thorough examination. It should be his duty to inform the parents of the possibilities of this condition and discuss with them the need of treatment. As the man in general practise rarely has the time or the training to care for these cases properly, it is always wise to refer them to some one who is fitted to give them the proper treatment and not, as is so often done, send them to the brace maker.

It is in the early stages of scoliosis that the best results can be obtained from treatment, and much time and trouble can be saved for the patient if this is enforced.

Also, I want to make a plea at this time, that the parents be told that it takes much time whatever the methods used to effect a cure, and that the patient must persist in home treatment long after they have stopped the more active part of the work. The treatment of scoliosis is a guidance of growth rather than treatment as the word is usually used. It is very discouraging to the specialist to get a case of scoliosis well started on the road to recovery and then have the patient stop because the parents chafe under the expense and because the patient tires of the restraint and is continually asking for some light apparatus that will effect a cure.

The writer feels that in the present day it is very poor advice, to

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say the least, to tell parents that the curve is a mild one and that the child will outgrow it. That such advice as this is constantly being given is without question and in many cases the golden time for beginning treatment is lost.

Dr. E. H. Bradford, in a recent paper, stated that ten per cent of all school children are effected with some form of spinal curvature which can be benefited by treatment, and that three per cent present spinal curvature which needs treatment.

Dr. Bradford's classification, which is an extremely good one, is as follows:

1. A flexibly curved back.
2. A fixed curved back.
3. A markedly twisted back with evident bone change.

It would take much too long to give even a short idea of the treatment of all forms of scoliosis, and I shall simply say a few words about the treatment of the structural forms.

I believe that we have all treated the structural cases simply with exercises and have seen failures result from this treatment. We must in all cases measure the effect of our treatment by results. Undoubtedly the Germans get better results from their gymnastic treatment than we do in this country, and I believe that it is due to the fact that we do not have the fine control of our patients that they have in Germany. Usually three times a week or at most once a day is as often as we can see these patients. All the demands of home life interfere, and the home work is often done in a slip-shod way. For the structural cases, Drs. Lovett and Sever, in a valuable paper published in 1911, give five causes:

1. Congestal anomalies of the spine, such as split vertebræ, defective ribs, etc.

This class is better understood since we have been able to use the X-ray.

2. Infantile paralysis.
3. Empyema.
4. Rickets.
5. Softening of the bones without evidence of rickets, but in which bone deformative is great.

The curvatures are usually double. There is always rotation, which is well brought out in forward bending. The curves are permanent in all positions. We are dealing with a real bony deformity of the vertebræ in which there are changes in the spinal struc-

tures; in these cases we should put the spine in as good position as possible and hold it there for a part of the growing period. The fact that we can correct rotation by pressure on the ribs has been proven experimentally by Drs. Keen, Soutter and others, so we use this principle in the corrective plaster jacket. If we put the patients into corrective jackets without giving them any preliminary treatment we have to use the jackets longer, that is more of them, than if we first use gymnastics. It is my custom to treat the patient for about a month if they can give that much time to it, by a course of gymnastics and massage designed to loosen up the rigid spinal structures and get the muscles as flexible as possible. These jackets can be used in two ways as advised by Drs. Lovett and Sever in their results of treatment as carried out for three years at the Boston Children's Hospital: the use of permanent plaster jackets for long periods, or by the use of first corrective plaster jackets followed after sufficient correction has been gained, by a removable jacket and gymnastics.

The first form is adapted to clinic work, and in my clinic I see very few cases of scoliosis. The latter form is the one I have used and with very good results. These plaster jackets can be put on either in recumbency or suspension. I use the suspension method, first getting the patient in as good a sitting position as possible fixed on an adjustable seat, and then making extension. The rotation is corrected by bands pulling in alternate directions, and as much force used as the patient can stand. Then the plaster jacket is applied, being careful to pad all prominent parts well. These jackets are carried up to the shoulders if the curves are low dorsal or lumbar, and include the shoulders if they are high dorsal. After the plaster is set the patient is removed from the frame and large windows cut out over the concave areas.

These jackets are worn from six to eight weeks, and during that time if more correction is possible it may be gained by pulling in pieces of felt over the convex surfaces. These jackets are of necessity somewhat uncomfortable, because it would be impossible to have the jacket comfortable and really get any correction, but the patients stand them well and in nearly all cases when the jackets are removed an appreciably amount of correction can be noticed. It is usually necessary to have the patient wear at least two or three of these corrective plaster jackets.

At the end of the corrective plaster jacket period we will have

the spine in a condition resembling the muscle class of scoliosis.

At this time a model for a leather or other type of removable jacket is applied with the patient in a corrected position in the frame. This model is split off and a plaster torso made from it.

This cast of the body is then corrected so as to make it as near perfect as possible. Judgment is the only guidance in the remodeling of the cast. It is usually wise to make the plaster a little longer than it is when taken out of the cast. This is done by sawing through the plaster and then adding an inch or two of plaster of paris as is needed in the cut area. The plaster torso is shaped and made smooth and then the leather stretched over it. This gives us a corrected jacket that is removable and not heavy. It is apparent that a jacket of this kind should not be made until we have got the patient in a state of good correction; if we make this type of jacket too early in the course of the treatment, it would soon become useless because the correction of the scoliosis takes place more rapidly in the earlier months of treatment. Now we have our patient in a condition which much resemble the muscular type of scoliosis and gymnastics are indicated.

I usually have these patients report three times a week. At these times the jacket is removed and the patient given the appropriate gymnastic treatment. It is not wise to give them home exercises for the first month, because at first the muscles are not strong enough to maintain good position except under constant observation.

After that time they can be trusted to do daily home work, increasing as they improve. These home exercises should be kept up all through the growing period, and the importance of this is very hard to impress on the patients. There have been many ways devised for recording lateral curvature and for tabulating the results obtained by treatment.

Some of them are very ingenious and interesting, but many of them imply the use of very expensive apparatus, and their use occupies much time. The writer feels that photographs are the best method of recording results. We must remember to pose the patient in as nearly as possible the same position at each sitting.

The following cases will illustrate the methods used:—

Miss A. F., age 14, came for treatment June 4, 1911. Family history negative. Past history negative. Present history: For about seven years has had some pain in her back. This pain occasionally runs down her legs. It has been better for the last two years. One year ago she fell out of a hammock. No bad effects from this fall. She has worn a brace,

ILLUSTRATING DR. HATCH'S ARTICLE.

Upper Left Hand—Miss A. F., June 4, 1911. Upper Right Hand—Miss A. F., Feb. 8, 1912.
Lower Left Hand—Wearing leather jacket, February 15, 1912. Lower Right—Same.

which was advised by the family physician, for two months without relief. No other treatment for her back.

Physical Examination.—Well developed and nourished girl. Stands with left dorsal right lumbar scoliosis, slight rotation. Left shoulder and right hip slightly raised. She was not able to start with treatment at this time, but reported for treatment September 27. She had corrective exercises from September 27 to November 9, during which time she had improved up to a certain point that is to say, the curvature was much more flexible, and the patient was in a better condition, but at this time it was apparent that exercises alone would not effect a cure, so a corrective jacket was applied, with as much correction as she could stand. Large windows were cut out over the concave surfaces and the jacket was fairly comfortable. December 13, 1911, plaster jacket removed and position of spine found to be much improved. New jacket applied, with still more correction. Windows cut out as before. February 8, 1912, has been wearing second jacket without any pain. Jacket removed today and spinal position found to be very satisfactory. While the curvature had by no means been corrected entirely, enough had been done to make it advisable to take up gymnastics. Model for a leather jacket made. This model was corrected as described above and the leather jacket made and put on. The patient has been taking active corrective exercises three times a week since then; I have not thought it wise to give her any home work as yet and she simply takes the exercises under expert supervision. The jacket is worn day and night and only removed once a week for bathing, and for the exercises, after which it is put on with spine in the corrected position.

Miss M. K., age 15, came in for treatment Dec. 26, 1911. Family history negative. Past history negative, except for pneumonia twelve years ago. Present illness: About four months ago her parents noticed that in walking she carried the right scapula more prominent than the left. Never had any pain. Her parents did not think the condition serious and she simply came for advice.

Physical Examination: Well developed and nourished girl, with a marked right dorsal, left lumbar scoliosis with slight rotation. Back fairly flexible. Right shoulder held higher than the left and right scapula more prominent.

January 2, 1911. Corrective exercises started with the idea of correcting, as far as possible, the stiffness in the muscles and ligaments. These exercises continued daily until January 11. I should like to have continued them for at least three weeks longer, but the patient was not willing to spend that much time in treatment. On January 11 a corrective jacket put on with as much correction as possible. The next day windows were cut out of this jacket over the concave surfaces.

March 2. The plaster jacket was removed. Patient's spine found to be in better position than in January. Another jacket was applied. Still more correction. Windows cut out as before. Patient reported April 5; second jacket removed and model taken in a corrected position for a leather jacket, this to be worn continuously in conjunction with corrective gymnastics.

Intravenous Ether Anesthesia. And Report of Cases.*

By E. L. SANDERSON, M. D., Shreveport, a.

The subject of anesthesia is always in order in discussions pertaining to surgery. It interests the surgeon because with anesthesia has come a new era: An era made brilliant by comparison with

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the time when the surgeon, handicapped by haste, sympathy and pity, to say nothing of the physical difficulty of employing delicate technic upon a struggling subject, did those things he should not have done and left undone those things he meant to do. It is interesting to the layman, for in its administration he realizes relief from pain. And while many of us might face even death unflinchingly in a crisis, yet where is the man who would thus lie upon an operating table without an anesthetic and have his gall stones removed? The subject is to-day engaging the attention of all scientists, from the chemist to the psychologist. Anesthesia is indeed the hand-maid of modern surgery, and God's answer to man's cry of pain.

It is not the purpose of this paper to discuss anesthetics in general, nor even to discuss the several properties or modes of administration of one. I shall only speak of the intravenous administration of ether. The method has been used by several operators for some considerable time and with varying results. Kutner reports 23 cases, with one pulmonary embolism and one with a clotting at the seat of injection: He considers its use perilous. Another operator held 11 autopsies on patients dying from disease and not due to the method, and failed to find any damage except occasional thrombosis of the vein at the seat of injection. Kummel reports 90 cases in patients too feeble or otherwise unfit for other methods, and reports no fatalities and observes that nausea and vomiting were absent. Burkhart reports 250 cases with no accidents. The technic of these operators has been practically the same; five per cent ether in normal salt solution, administered in the same way that intravenous infusion is done, with the exception that there must be a controlling device to regulate the amount of solution flowing into the vein. And most of them have used a warming chamber to heat the solution just before it enters the vein.

We have tried several devices in the hospital at Shreveport, but before discussing them and our results, I will recall some of the properties of ether. Under atmospheric pressure and at ordinary temperatures normal saline solution will become saturated with ether when 5 per cent is added. It is well to recall also, that additional pressure will influence the solution to take more ether and will also delay evaporation from the mixture when heat is applied. We noted also that when our 5 per cent ether solution was heated to from 95 to 100 F. that few small ether gas bubbles began

to rise; representing perhaps a slight supersaturation. At 103 or 104 F. 1 per cent or more of the ether rapidly evaporates, giving the solution the appearance of boiling. Under slight additional pressure this evaporation is retarded for several degrees, but proceeds rapidly when released, as in passing from a pressure bottle into a tube where there is but slight pressure. These few facts concerning ether have, in my mind, all to do with the successful employment of the method. And certainly, the low boiling point of ether is a very serious factor in the evolution of this new procedure, and may prevent its ever emerging from the experimental stage.

This conclusion was suggested by our first case, and has been borne out by later experiences. In our first case we added the ether to a fairly warm salt solution and gave the patient half a gallon of the mixture: The nearest she came to anesthesia was to laugh, and I am not sure but that the laugh was provoked by our failure and not by the anesthetic. Later experiment showed that when ether is added to water at 90° F. or above, it is evaporated before the water can take it up.

After finding that it required such a large amount of the 5 per cent solution, we decided to try a supersaturated mixture by using pressure. This was easily done, and we secured a solution of perhaps 6 per cent. But when it was allowed to escape from pressure into the tube and thence into the vein, we were alarmed to find the vein distended with gas from the elbow to the axilla, and there is no doubt that large quantities of the gas entered the heart itself. There was some bronchorrea, but the heart action was not influenced. We used a cold solution in one case and noted little or no difference in its effects from those of the warm solution.

Our apparatus and technic as now employed, are as follows: 100 ounces of distilled and sterile water at an ordinary temperature, say 32° to 60° F., are filtered into a gallon bottle; to which is added half an ounce of salt, and four and three-quarter ounces of ether. Using a sterile stopper the bottle is well shaken. This amount of ether is taken up immediately by the water. This bottle is now placed in a water bath and heated until a few small bubbles begin to rise. It is then removed and placed in a well-insulated case, where its heat will be retained for hours if necessary, and directly from which it is given, through a tube not over 18 inches long. Pressure is secured by forcing air into the bottle by a syringe bulb.

The short distance from the container to the vein effectually prevents the inevitable cooling of a solution slowly passing through a long tube. We use the simple little globe valve taken from an ethyl chloride spray tube soldered on the upper end of the small metal tube that goes through the stopper to the bottom of the bottle. This gives us a very delicate adjustment for our outflow. We use one of those little glass globes of the Murphy Drip apparatus to enable the anesthetist to see just how fast the solution is running. We use the ordinary infusion canula for the vein. With this apparatus and technic the solution enters the vein at about 90° to 94° F.

Under local anesthesia a vein of the arm is raised as for infusion, and canula inserted with the solution flowing. It is well to have some one ready to hold the arm still should the patient show any excitement; for if an excitement period is experienced and the canula displaced by accident, it may be several minutes before the patient can be quieted sufficiently to reintroduce the canula. We insert the canula with the solution flowing in a very small stream. This continues for about three minutes, when the patient begins to mutter or show other signs of impending loss of consciousness, the flow is doubled and within one minute the excitement stage is eliminated and the patient is sleeping peacefully. It is interesting to note that the eye reflexes are the first to be lost; often before the rest of the body is relaxed. After the patient is relaxed completely the flow is reduced to a very small stream; just a little more than the fastest dropping. This is further adjusted as the case may indicate. We keep the solution flowing continuously, even if the patient is deeply narcotised we keep it at least going in by drops. For some reason, with one case, we stopped the flow and released the pressure for a few seconds; blood came back through our canula and showed up in the little drop globe. Fearing a clot we withdrew the canula and put pressure into the bottle and expelled a long clot. I feel sure it was an accident like this that gave Kuttner's patient the pulmonary embolism.

To conserve time and lessen repetition I have mentioned only the salient features of each case, and tried to answer any questions for further information in the summary following:

Case 1. Colored female, age 30. Operation, thyroidectomy. General condition good. Complete anesthesia in fifteen minutes; anesthesia not constant, and showed a tendency to nausea. Time of operation, thirty minutes. Solution used, about three pints, or about two and one-half ounces of ether.

CASE 2. Colored female, age 18, general condition fair. Operation, laparotomy. After half an hour's effort, and after giving a half gallon of the solution, it was abandoned and the open cone used. This was the instance where we added the ether to the warm saline, with its consequent evaporation.

CASE 3. Colored male, age 22, general condition bad. Operation, infected gunshot wound of thigh. Complete anesthesia in seven minutes; no excitement stage, no bronchorrea or nausea. Time of operation, ten minutes. Amount used, two pints, or one and a half ounces of ether. Was wide awake in three to five minutes after anesthetic was stopped. No excitement, bronchorrea or nausea.

CASE 4. Colored male, age 31, general condition bad. Operation, curettage of widespread infection around pubis and genitalia. Complete anesthesia, twelve minutes. There were bronchorrea and slight cyanosis present. Time of operation, thirty minutes. Patient awake in five minutes, and coughing very violently. The cough bothered him for twenty-four hours, after which he seemed all right. He developed a lobar pneumonia on the ninth day and died. There were other cases of pneumonia in the ward, and, as no autopsy could be had, we were not sure if the anesthetic was to blame or not. This was the case in which we used the supersaturated solution, and allowed the gas to enter the circulation. This is impossible now, since we use the drip globe.

CASE 5. Colored male, age 16, general condition good. Operation, sequestrotomy. Complete anesthesia, three minutes. Time of operation, twenty minutes. Awake in six minutes. No excitement, bronchorrea or nausea. Amount used, three pints, or two and a quarter ounces of ether.

CASE 6. White male, age 30. Operation, cervical adenectomy. Complete anesthesia five minutes. Time of operation, thirty minutes. Wide awake in five minutes after anesthetic was stopped. No excitement stage, no bronchorrea and no nausea. Amount of solution, three pints, or two and a quarter ounces of ether.

CASE 7. Colored female, age 20, general condition bad. Operation, fecal fistula. Complete anesthesia in five minutes. Time of operation, twenty minutes. Wide awake in ten minutes. Amount of solution used, one and a half pints. No excitement stage, bronchorrea or nausea.

CASE 8. Colored male, age 35, general condition bad. Operation, amputation for infected compound fracture of leg. Complete anesthesia in eight minutes. Time of operation, thirty minutes. Awake in about twenty minutes. Amount of solution, three pints, or two and a quarter ounces of ether. No excitement stage, no bronchorrea or nausea.

CASE 9. Colored male, age 35, general condition fair. Operation, plastic work on face. Complete anesthesia in twelve minutes. Time of operation, one hour. Amount of solution used, nearly three quarts, or four and a half ounces of ether. No excitement, bronchorrea or nausea.

CASE 10. Colored female, age 14, general condition fair. Operation, enucleation of the eye. Complete anesthesia in four minutes. Time of operation, eighteen minutes. Solution used, one pint, or six drams of ether. No excitement, bronchorrea or nausea.

CASE 11. White male, age 32, general condition good; hard drinker. Operation, excision of necrosed bone. Complete anesthesia in six minutes. Time of operation, fifteen minutes. Wide awake in five minutes. Amount of solution usd, one pint, or six drams of ether. He showed slight excitement for three minutes.

CASE 12. White male, age 28, general condition good. Operation, cervical adenectomy. Complete anesthesia in nine minutes. Time of operation, one hour. Amount of solution, three quarts. There was profuse bronchorrea and considerable cyanosis throughout the operation, with signs of respiratory embarrassment even after the anesthetic was stopped. There was a slight error in preparing the solution for this case. As soon as we began, the gas began to collect in our drip globe. We detached the tube and let it escape. This was repeated every few minuts, thereby keep-

ing the gas out of the vein. We reasoned that the solution was supersaturated, and added more water, which stopped the gas from forming, but did not seem to relieve the respiratory irritation. Later inquiry developed that the solution had been over-saturated. The patient did well and showed no after-effects.

Observations.—Our experience with the method is too brief to venture an opinion as to its safety. But with proper care in carrying out the details there should be no more danger than that met with in the open cone method. It requires more skill and care, and the attention of two anesthetists. The raising of the vein is annoying to nervous patients. Anesthesia is produced with great ease and rapidity. Some of the patients fall asleep without a murmur and breathe and look like one in natural sleep. There is seldom any excitement stage, and bronchorrea and nausea are practically eliminated if your solution is not oversaturated. There is an increase in blood pressure in patients who have a subnormal pressure. But even when almost a gallon has been given there is no perceptible raise of blood pressure. Post anesthetic vomiting has not been observed in our cases where the details were right. Cases in which supersaturated solution was used, showed about the same symptoms observed in cases of open cone anesthesia.

I wish to thank the hospital staff for their interest in the experiments and especially the ambulance surgeons, Drs. Kerlin, Simonton, Moreland, Herndon, Wimberly and Walsworth, who have kept up with the cases and in every way made it possible to carry on the work.

Discussion on Sanderson's Paper.

Dr. C. W. Allen, New Orleans: I feel that we ought to congratulate Dr. Sanderson on having brought before us such a large number of cases in which he has used this method of anesthesia. As he says, it must be used in a sufficiently large number of cases in order to draw reliable conclusions, but the disadvantages must be greater and the dangers much greater from this method than from the use of anesthesia as now practiced. There is danger of the patient struggling, and there is some likelihood that during this period of excitement the canula may be dislodged or damage caused to the vein, leading later on to thrombosis. In some of the cases reported it was supposed that that was the cause of death. The mortality in the cases reported so far has not been great. A distinct disadvantage is the relatively large quantity of the solution that is necessary. The intravenous injection of large quantities of

the anesthetic is to be regarded with considerable danger, even though the period of injection extends over an hour, for the reason that pulmonary edema and renal congestion are likely to occur, which will raise the mortality considerably, and should prove very dangerous in patients with high blood pressure and arterial disease, but no doubt, as with rectal anesthesia, it has a field of usefulness, and the doctor ought to be congratulated on this report.

Dr. J. F. Oechsner, New Orleans: Without commenting on the paper itself and the principle involved, I think the method has its limitations and can only be used in selected cases. There is one practical point relative to the scar after the injection of salvarsan to which I desire to call your attention, and it is this: This scar can be avoided in this way, instead of using the ordinary canula and exposing the vein, it can be done subcutaneously by inserting the instrument into the vein, and there is no scar left.

Dr. Louis Abramson, Shreveport: I want to say to these gentlemen that this method is no more dangerous apparently than giving ether by the mouth. The patient goes under quickly. With ordinary surgical care it is simple and a comparatively safe procedure. It is certainly no more dangerous than giving ether by the ordinary method of inhalation, and the patient goes under much more quickly and rallies more quickly, if too much of the anesthetic is not given.

Dr. I. M. Callaway, Shreveport: I have done some operations with the assistance of this anesthetic, and we had no trouble at all. In nervous patients it is rather disagreeable. They are a little excited because they have their veins opened, but in operations on the neck and face it is a very fine method. You get rid of the anesthetist; he is out of the way. We have had no bad results in any of the cases I have seen. The last case was a double thyroidectomy, and towards the latter part of the operation the patient became very much depressed and looked as though she was going to die on the table. She was in bad condition before the operation was begun, her pulse 140. We thought we had better leave one of the glands or the side of the glands, and wait for another time, so that the doctor removed his canula from the vein, and while working on the other one the patient picked up so much we thought we would have opportunity to complete the other side before the patient came out from under the influence of the anesthetic. The patient began to come out and with very few whiffs of ether in the cone the

operation was completed. Really, during that period the pulse dropped nearly forty beats, and the patient went off the table in a better condition than before. As I have said, we have had no trouble with the anesthetic. There are great possibilities of danger of clots entering the circulation, and there are some objections to this method of anesthesia on that account, but I must say that we like it very much.

Dr. J. M. Batchelor, New Orleans: There can be no question that the intravenous administration of ether is certainly attended with a very much higher mortality than by the method of inhalation. Many patients require very much more ether than others to produce surgical anesthesia. In those cases, under the intravenous administration, a very large quantity of the fluid is required to be injected, and this is a very serious drawback or danger. There may be overdistension of the veins, and as Dr. Allen has brought out, there may be pulmonary edema with congestion of the kidneys and all the sequelæ of ether irritation and overdistension of veins. The advantages to be obtained in removing the anesthetist in operations about the face and upper air passages are quite as well met by the mouth-piece in administering ether. We perform operations in the throat and mouth without any obscuring of the field of operation by the modern methods of administering ether. So I think this method is due to have a short run.

Dr. E. L. Sanderson, Shreveport (closing the discussion): The case Dr. Callaway refers to was a double thyroidectomy. It came after my paper was finished, and that was the thirteenth case, and that is the reason we had trouble with it. (Laughter.) When we began to administer the anesthetic the patient had a pulse of 140; before we stopped the anesthesia the pulse was less than 100. We have had that experience with several patients. Some one has remarked that the injection of the fluid into the vein is dangerous. There is a question there. We know blood pressure is regulated by a device nature has given us for that purpose, and it is very much like the temperature is regulated. Take a man who works in a hot furnace, with the air hot all around him, you cannot raise his temperature very much. You can withdraw blood from the veins without lowering blood pressure. This anesthetic goes in gradually, the respiration is not interfered with, and some of it passes out through the skin. Take a patient who has lost a lot of blood. Take a patient who is almost exsanguinated from an abortion, where you do

a curettage, and you want quick anesthesia, give intravenous infusion. It seems to me, it is ideal and it is not dangerous. I do not advocate it as a routine method, but all hospitals should be equipped with the simple apparatus that is necessary, because if you have a patient who is dying from a growth away down in the trachea or the throat, you cannot get at it with the usual method of anesthesia, but you can get at it with this method. While, as I have said, I would not recommend it as a routine method, yet there are cases in which it is indicated and it is superior to any method of anesthesia I have ever seen used.

Cleft Palate.*

By JOHN F. OECHSNER, M. D., New Orleans.

A study of the records of the New Orleans Charity Hospital between the years 1906 and 1912, during which time these records have been accurately kept and filed, shows that in children there have been admitted 22 cases of uncomplicated hare lip and 54 cases of hare lip and cleft palate. In adults, ranging in age from 14 to 32 years, there have been 4 cases of hare lip and 9 cases of hare lip and cleft palate.

These figures are in striking contrast with those of other hospitals, particularly the Great Ormond St. Hospital, London, where Mr. Lane operated on 369 cases during two years, and the Mayo Clinic at Rochester, where 52 cases were treated in 1911, and suggest that either Louisiana and the surrounding country are particularly free from this congenital defect, or these cases are not operated, or they go to other surgical clinics for relief. That many of these cases go untreated is my firm conviction, since every year members of my classes tell me of adult cases in their respective communities. Several factors are responsible for this state of affairs. The operation is tedious and difficult at best; immediate results are not as promising as they are in most other non-chronic surgical conditions, the operator becomes disheartened at his temporary failures, closes the associated hare lip for its cosmetic effect, and determines, honestly for the time being, to tackle the cleft palate at some future day. Awaiting that august day, the average family, with the deformity concealed from view and becoming accustomed to the child's defective speech, forgets its responsibility,

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relaxes its vigilance, and the operator, unable to trace his cases under even the most favorable circumstances, is unconsciously willing to lose sight of this particular case. His more acute surgical routine, the removal of vermiform appendices, herniotomies and what not have served to keep in operation his humanitarian activities. It is possible that this has been one factor in determining some operators on very early operations, whereas years ago these operations were done later in life.

Time of Operation.—The choice of time for operation has always been a matter of much discussion, and is far from settled. As with nearly all surgical procedures, the pendulum has swung from one extreme to the other. Medical literature shows that whereas formerly the operation was advised only after the child was a few years old, to-day the advocates of immediate operation are by no means few, but arrayed against them are quite a number of surgeons of no less skill and reputation.

Quoting from Jacobson and Steward's Operation of Surgery, 1902:

"Writing, as I do, for the guidance of many of my younger brethren, I consider that the end of the first year should be reached before a cleft of the soft palate should be operated upon, and then only under favorable conditions, and that the patient should be two years old, at least, before a complete cleft is operated upon. * * * I am very glad to be supported here by an old friend, G. A. Wright, surgeon to the Children's Hospital at Pendlebury, Manchester, and also surgeon to the Manchester Infirmary. Writing in 1899, this authority states: 'For choice the operation should be performed between the fourth and sixth years, but in the less severe cases it may be done as early as the third year; before this it is not wise to attempt it, unless in exceptional circumstances, since the risk both of failure of the operation and of the child's life is much greater, though some surgeons advocate operation in the second, or even the first year. A most interesting discussion on this topic was that before the Surgical Section of the British Royal Society of Medicine, in May, 1911. One of the main points of contention was as to the time of operation. Arbuthnot Lane, championing the cause of early operation, states that he operates as soon after birth as possible, in severe cases to save life, and in others to obtain sufficient air pressure in the nasopharynx during respiration to enable the nasopharyngeal surrounding bones fully to develop as they do in a normal child. He has done this operation seven hours after birth. He contends that in the first few days of life these infants are at their best, and appear to show much less evidence of shock than they do later. Changes in the form of parts, such as the premaxilla, etc., take place with extraordinary rapidity during the first week of life as compared with the changes which ensue afterwards. The effect of closure on the cleft on the general condition of the child is also most striking.

"The statistics of the cases operated on by Mr. Lane were given by Borrington Ward. During the two years at the great Ormond Street Hospital, out of 369 operations, 22 resulted fatally. Of these 369 operations, 144 have been first operations on infants of one year of age and under, and of these, 124 were under six months of age. Of the 144, 18 died, being a mortality of 12.5 per cent. Ward then ingeniously finds that, as

10.9 per cent is the normal death rate in infants under one year of age in England and Wales, the death rate from the operation involves a mortality of 1.6 per cent over the normal death rate. James Berry, of London, and Johann Ulrich, of Copenhagen, were the principal opponents of Mr. Lane in the question of early operation. Berry reports a series of 81 cases operated upon since 1905. Two patients only were under one year of age, and five were over sixteen. There was no mortality from the operation, and, with one or two exceptions, no patient was seriously ill. It is his 'strong belief, founded upon a considerable experience, not only of his own operations, but of those performed by others, that the best period in most cases for the performance of a cleft palate operation is between the ages of one and three years, according to the nature and width of the cleft, although there is a minority of cases of comparatively slight clefts, chiefly of the soft palate, in which operation may be undertaken with advantage even in the first year of life.'"

Ulrich prefers to operate at the age of three years. In summing up these mortalities, Berry concludes that "Mr. Lane's bold statement, wholly unsupported by statistics, that early operation saves a large number of lives which would otherwise be lost does not receive much corroboration from the above-mentioned figures, and requires no further comment." Faggs' statement that " the mortality from malnutrition among babies suffering from bad cleft palate is very high," and while it would seem evident that these little subjects are additionally necessarily predisposed to respiratory and gastro-intestinal disorders on account of these anatomic defects, it is unfortunate that vital statistics as kept offer no solution of the problem; in death certificates, the cleft palate would hardly figure as the chief cause of death. Fagg's own mortality figures hardly bear out his contention. Of 57 cases of cleft palate on which he operated, 38 were infants under one year of age at the time of the first operation. Of the 38 infants, three died in the hospital, and 14 others died later of serious diseases, of which 6 were directly or indirectly due to subsequent operations for hare lip. Nor do we think Mr. Lane's mortality statistics bear out this assertion. Ranzi records the results of 61 operations for cleft palate, most of which were done by the Lane or Langenback-Billroth methods. There were 10 deaths in all, a mortality of 15 per cent. All of the deaths occurred in those of 2 years of age or under; 31.5 per cent of those under two years of age were cured, while of those operated on after the second year, 71.4 per cent were cured. Helbing reviews his experience in 53 cases of cleft palate with success in 75 per cent. He operated in two sittings and at a very early age, as he obtained better results and found the operation no more difficult in children under 3 months. Among American surgeons greater conservatism exists, and with the possible exception of Brophy, who

utilizes his operation very early in life, we can count hardly any radicals. While some American surgeons are disposed to agree with Lane in his position, the prevailing note is one of conservatism. While my own experience in this particular condition in infants is limited, my experience in other conditions does permit me to state that very young infants do not stand operation so well, that, arguments to the contrary notwithstanding, they do not tolerate blood loss so well. Theoretically they should stand a proportionate loss of blood as well as any subject, but practically, the blood loss cannot be determined, and is frequently in excess of what is supposed. Moreover, the delicate tissues of the infant seem to resent traumatism in an exaggerated way, and sloughing is more likely than later in life. I fear that, in the discussion of this much mooted question, the personal equation is lost sight of. The greatest divergence in physical development and resistance may exist between two children, and this should be at least one determining factor governing any operation. It will thus be seen that we are hardly in a position, for the present at least, to establish any hard and fast rule. It is quite generally agreed to-day, that the cleft should be closed before the child begins to speak.

Choice of Operation.—The majority of operators are probably using the Langenback method, or some modification of it. Here again the individual cleft will determine the character of operation. When the cleft is complete and through the alveolar process, with one side of that process projecting above the other, it is necessary to bring these edges in approximation, with a silver wire suture through the alveolar process, according to the method of Brophy. The edges of the alveolar cleft have been previously pared, and the projecting end is forced to meet its fellow. We have followed this plan in those of our cases requiring it. When the intermaxillary bone projects, it becomes necessary to cut that subperiosteally and force it into place. It is inadvisable to remove a segment of bone, but better to let the fragments slide by each other, and in this way, still more tissue is provided to fill in the gap. A physical fact which is always well to bear in mind is that a closed hare lip will eventually do much toward pressing a projecting intermaxillary bone into place.

While the Brophy operation would seem theoretically correct, it has not come into popular favor. According to Brown, forcible methods of cure in early infancy alter the shape of the dental arch,

and arrest development of the maxillary bones, and interfere with phonation. Brophy maintains that there is as much divergence between the upper and lower alveolar arches as is represented by the cleft, and therefore a closure by his method brings the teeth in proper approximation. It is not so much what particular operation one does, but certain basic principles must be kept in mind.

There are:

1st. Absolute relaxation of flaps so as to obviate tension.

2d. A good blood supply for these flaps.

3d. A proper and broad coaptation of raw surfaces.

It is true that with the Lane operation the question of tension does not enter, but in the majority of cases the lateral relaxation incisions will obviate this difficulty. When the palatal arch is high, or of the Gothic type, it may suffice to build the muco-periosteal flap from the cleft without lateral incisions, but where it is low or of Norman type, these incisions usually become necessary.

Of the 54 cases recorded at the Charity Hospital it was our good fortune, or otherwise as you will, to have fallen heir to 11—another case is now under treatment. In all of our cases we used the Langenback method with certain modifications following the procedure advocated by Wolff and Helbing of doing the operation in two or more sittings. It has seemed to us, that the creation of the muco-periosteal flap at the first operation, with a subsequent interval has permitted of a proper regeneration, as it were, of the blood supply. While repeated operations are to be deprecated, it has seemed to us that the shorter repeated anesthesias of a step operation, together with a relatively smaller blood loss, and ready post-operative recuperation possess certain advantages. Helbing's statistics would seem to bear out this suggestion. We must confess that cure under one operation was not the rule with us, and in looking up the statistics of other operators, it was at times discouraging to note how much more splendid and ready their results, but a further reading between the lines and personal conversation with operators taught us that their experience was the same as ours. Oral asepsis is one of the most difficult things of accomplishment—dryness is an important factor in all primary wound healing, and is impossible in the mouth. We have cast about in an attempt to secure some dehydrating agent which would not interfere with the nutrition of the flap, but unsuccessfully. It therefore becomes more important, since we are deprived of this factor to carry out most

thoroughly the basic principles above enunciated. Temporarily failures should not discourage one—after a lapse of time, preferably out of the hospital, the operation should be done again. Frequently an immediately partial success will terminate in an eventually complete one by granulation—we have seen fistulæ large enough to admit the tip of the little finger close entirely. The use of suture material is a matter of individual choice; formerly we used silk, latterly we are using linen. The use of tape encircling the flaps is unnecessary; if the tension be sufficient to require an extraneous force, the operation is doomed to failure; moreover, it serves as a poultice to keep up moisture, such a bane to primary union. Ordinarily it is not necessary to pack the lateral incisions, as they take care of themselves.

While the Rose position prevents to a great extent the swallowing of blood it does not do so altogether, and it has been our custom to obviate post-operative intestinal infection by encouraging vomiting and gastric lavage by as much water as the child will drink. We also invariably give a purgative that night or the next morning. Concerning the post-operative care of the mouth while considerable difference of opinion exists regarding antiseptic mouth washes, it is the consensus of opinion that the mouth had better be bothered as little as possible; nor should we, in our anxiety to see how things are going on, make too frequent examinations.

Speech Defects After Operation.—Waugh brought up this discussion before the meeting of the Surgical Section of the British Royal Society of Medicine at their meeting in May, 1911, and among others things says "while it has been assumed hastily that the cause of the speech defect was residual in the structure alteration of the palate, in all probability there were two associated lesions to consider—one in the functions of the speech centres, and one in the structure of the palate—and they were not two interdependent lesions. Therefore it ought not to go forth as the opinion of that meeting that surgical operations on cleft palate could hold out much hope to the victims of that condition that they would be able to disguise their deformity in after life." Eastman says, "the conclusion that closure of the cleft in no wise remedies defective speech has been formulated by the observation of cases operated upon too late. Precise closure of the cleft does remedy defective articulation if the operation is done early enough in the period of growth." That speech defects are overcome, even though the

operation be done late, is well demonstrated by one of the cases which we show today.

[At the conclusion of his paper, Dr. Oechsner exhibited patients illustrating the principles of the method of operating enunciated in his paper.]

Discussion on Dr. Oechsner's Paper.

Dr. C. W. Allen, New Orleans: Such an interesting paper as that which has been presented should receive some comment on our part. Of course, like all operations hard to do, cleft palate closure is a difficult procedure, and we must expect a certain number of failures. There are some points I want to bring out here, and one is that where the principle of Brophy of approximating the alveolar arches is resorted to, and we undoubtedly see cases in which the gap is so wide that some such procedure has to be adopted, we find in those cases the alveolar ridge above does not approximate to the ridge below, and as Dr. Oechsner has said, the gap between the hard palate is equivalent to the distance of separation of the arches. Where that condition exists and it is necessary to approximate the alveolar processes, and in this event, if incision is necessary, the case should be deferred until one year of age, which is about the best time to operate. In passing the blade of the knife to loosen the bone it is important to get the knife high enough up to be above the teeth that are going to erupt. The little cells that are going to give form to the teeth are away up in the jaw, and if the incision is made below them you have the teeth erupting on the side and coming out against the cheek. I have seen that happen, so that it is necessary to make the incision sufficiently high.

I have found that considerable time can be saved in using silver wire. It is a difficult thing to insert stitches way back in the mouth, particularly linen or silk, and much time is lost; besides, you are continually sponging, which tends to loosen those already tied, but if silver wire is used and you do not attempt to tie the sutures until all are in, holding each silver wire suture with artery forceps, then twisting them and cutting them off short; it is remarkable how quickly all of the sutures can be placed in that way. Another thing it keeps the patient's tongue from the line of suture, which it will not do if you tie with silk or linen thread of any kind.

Dr. I. M. Callaway, Shreveport: I had one case of cleft palate two years ago. In fact, I delivered the woman of this baby. It was the only child of the family that had ever had any deformity or any trouble. The other members of the family were rather swarthy and below the normal stature, but they were healthy and well formed. I could not find any syphilitic history in the family, nor a history of any case of the kind ever appearing in any of them as far back as they could remember. I did not wait probably as long as I should before operating on this child. At the end of five months I undertook to do the Brophy operation, and I do not know how long the operation took, but I think the operation lasted over two hours, and I knew I had been busy all the time. The operation was tedious and did not impress me as a nice operation to do. I got my bone down very well. There was a great deal of tension, and I do not think I did as good a job as I thought I was going to do when I started out with it. The child developed afterwards a good deal of sloughing in the mouth around the gum. I used silver wire and twisted it, and there was some sloughing in the gums. The child developed an intestinal trouble, and was in very bad condition for three or four weeks, and at the end of the fourth week the child died from inanition and from bowel trouble. I do not feel favorably impressed with my results. Where we have to handle a good many patients in the Charity Hospital in Shreveport, we have had only about two cases. This was a private case, but in the hospital we have had one other case that was not operated at the hospital. These cases seem to be very rare, and while I know of several cases, yet they are not as plentiful as we would think.

Pancreatitis.*

By WALDEMAR T. RICHARDS, M. D., New Orleans.

When Korte read his first article on pancreatitis before the German Surgical Society in 1894 it occasioned little or no discussion. Up to that time inflammations of the pancreas had been recognized as a rarity, today it is one of the most difficult problems of diagnostic technic concerning inflammatory conditions of the upper abdomen with which we have to deal.

Pancreatitis acute with its sequelar pus formation and necrosis

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is ocupying the scientific minds of the medical and surgical world. With researchers laboring unceasingly, we are having more and more light shed on the subject, withal only too often is the diagnostic skill of the clinician placed to a severe test. In the past two years it has been our good fortune to have operated on nine cases.

It occurred to me if we could concisely present to you, gentlemen, some of our observations culled from these cases, I may shed a little light on this hitherto obscure trouble.

Before considering the subject of diagnosis, treatment and observations, let us pause for a minute and consider the physiology of the pancreas; with this knowledge at hand we can consider and interpret more intelligently and symptomatically of pancreatitis.

The pancreas has an external secretion dependent on the glandular acini to supply a digestive juice to flow into the duodenum.—(Stradmuller, Archives of Diagnosis). It is assumed that an internal secretion exists independent on the islands of Langerhans; these consist of groups of polygonal cells without an excretory duct and are seated among the acini on the stroma of the gland and surrounded by a profusely developed vascular network. The special province of this secretion, which is emitted into the surrounding lymphatics, is supposedly the control of carbohydrate metabolism. According to Lowi, it exerts an inhibitory effect on the sympathetic.

The value of pancreatic juice, both as a factor in digestion and as the object of diagnostic deductions, depends on its contents of enzymes. We have to take into consideration the fat splitting ferment or steapsin; diastasic ferment, amylopsin; proteolytic ferment. trypsinogen. According to Pawlow, when this last ferment, trypsinogen, comes in contact with the intestinal ferment, enterokinoso, it is converted into trypsin.

Rennet, best known through the efforts of Wohlgermuth, is of no importance from a diagnostic standpoint. Secretin, found by Starling and Bayliss, is not a ferment, although it acts as a powerful stimulant to the pancreatic secretion when introduced into the blood current. It is of no therapeutic or diagnostic value.

Etiology—Pancreatitis is undoubtedly due to an ascending infection by way of the pancreatic ducts. Pancreatic abscesses in animals have been formed by injecting Bacilli coli into the pancreatic duct. Maas and Etienne obtained pyogenic cocci, Proteus vulgaris and other bacteria.

The diverticulum of Vatter is provided with valvelike folds that prevent intestinal contents from entrance into the ducts. Flowing pancreatic juice prevents the ascension of intestinal flora, whereas occlusion of the ducts affords conditions favorable to their entrance. Owing to the particularly intimate relation existing between the bile passages and pancreatic duct, it is more than probable that in the majority of the instances of pancreatic inflammation, the pancreatic duct inflamamtion is secondary to the common duct. (Case No. 6.)

Pathology.—Microscopically the interstitial tissues are edematous and infiltrated with polynuclear leucocytes, forming collections of considerable size. The edema produces an anemia and necrosis. Microscopically the gland presents, over its entire surface, or in groups, little hemorrhagic spots that seem to lie just beneath the superficial epithelium. These spots bleed very readily when handled, as was readily seen in case No. 4. The blood, after a few days, asumes a blackish reddish color. The lesser peritoneal cavity contains the same fluid. It is but one step from this hemorrhagic condition to the gangrenous condition with sloughing. Time will not allow me to discuss the histological pecularities of these lesions and to show the relationship of hemorrhage on the one hand and gangrene on the other.

Diagnosis—Fitz Classification (made in 1889) is nearly correct. He describes three forms—purulent, hemorrhagic, and gangrenous; still we must realize whereas it is possible to demonstrate the transition stages by pathological and anatomical examinations, we must also appreciate the fact that it is not possible to sharply differentiate in the patient any of these stages during life. Therefore, we will consider the diagnosis of pancreatitis as acute with its sequelar purulent, hemorrhagic and gangrenous.

Unquestionably the lighter grades of pancreatic inflammation entirely disappear or go on to a chronic form, but when the inflammation declares itself by bloody and swollen infiltration, we then have that class of symptoms with which we have in the past diagnosed pancreatitis. The general symptoms of pain, tumor, cachexia and pressure of the surrounding organs are present, although it is recognized that diseases of pancreas give us no classical symptoms or diagnostic sheet anchors.

Acute pancreatitis is to be suspected when a previously healthy person or sufferer of occasional attacks of indigestion is suddenly

seized with violent pain in the epigastrium, followed by vomiting and sometimes collapse, followed in the course of twenty-four hours by a circumscribed epigastric tenderness, with a specially tender point about an inch to an inch and a half below the ensiform cartilage, a little to left of the median line. This circumscribed tenderness soon becomes a swelling, tympanitic or resistant, followed by muscular spasticity; sometimes this stage is accompanied with a slight rise of temperature. Pain is usually severe and referred to the epigastrium. I observed particularly the sensitive point below the ensiform cartilage. In all of my cases that had progressed to suppuration, there was a constant pain referred to a point corresponding to the eighth or ninth dorsal vertebra. (Case No. 7.)

Noetzell speaks of a case that had pain to such an extent in pelvic inflammation. (Case No. 5.)

It is a very difficult matter and at times impossible to differentiate the local tenderness of pancreatitis from inflammations of the gall passages, duodenum or the pyloric region; because the large sympathetic nerve ganglia, found in the region, serve to transmit sensitiveness from all points in this region. Fortunately, the acuteness of pancreatic inflammation is very marked, the epigastric distress, belching and tendency to collapse. The severe pain especially localized between the navel and ensiform cartilage, vomiting practically constant and lasting for a few hours or days and at times uncontrollable; the muscular spasticity, giving that woodenlike feeling on palpation and finally cachexia. Attention has been called to the biliary character of the vomitus. In my opinion this is of no diagnostic value, because any vomiting that persists for any length of time finally becomes biliary. We have noticed at the onset persistent uncontrollable belching and hiccoughing. Where the hemorrhagic form follows very soon after the onset, collapse is marked, and in some cases it passes quickly to a fatal termination. The marked cyanosis in these cases remains unexplained. A certain percentage of the acute cases survive the acute onset and drift into a chronic state. Temperature may be normal, with no palpable mass in the upper abdomen. Leucocytosis is usually present. These cases are to be recognized by the occasional chill and slight rise of temperature, with a recurrence of the original symptoms, slow pulse and marked toxemia. We noted in one case whose history dated back two months some

interference in the passage of gas, with corresponding distress caused by intestinal and abdominal distention; jaundice was present in this case. Curvosier's sign helped us to differentiate this pancreatic jaundice from gall stone jaundice. (Case No. 3.)

In pancreatic jaundice the gall bladder is usually palpable as a good-sized tumor, whereas in gall bladder jaundice the gall bladder is as a rule contracted. Those cases in which we are unable to arrive at an early diagnosis, or are reluctant to operate on, usually developed the tumor formation. The large, swollen, hemorrhagic pancreas is hardly palpable, excepting in those cases of tumor and cysts of the tail. Finally, in those cases that have a tendency to run a chronic course undiagnosed, there may be an infection of the pleura through the diaphragm, causing an empyema. (Case No. 2.) In all suppurative cases the pus was a golden yellow and contained fat globules; Colon bacilli were found in every examination.

Cachexia—Owing to the deficient function of one of the most important digestive glands of the body, a marked cachexia is present. This is best seen in the chronic cases. That the cachexia is due to an absence of pancreatic secretion and not to suppuration was shown by a series of experiments by Rene de Graaf on dogs with pancreatic fistula; in spite of a voracious appetite, the animals rapidly emaciated from the time the pancreatic juice ceased to flow in the intestine. The consensus of opinion is that in a certain number of cases it is impossible to diagnose with certainty a pancreatic lesion, even with the aid of all the functional tests, Cammidge reaction included, for the reason that if the gland is only partially destroyed or its secretory ducts are not completely occluded, the assimilation of food may continue, because nearly all of the functions of the pancreas can be vicariously performed by other organs. As Korte correctly observed, up to now we know of no symptom that invariably occurs in pancreatic affections. Our greatest advance will be in the discovery of a pathogonomonic reaction.

Treatment.—Early operation greatly improves the prognosis. It is important to reduce a minimum the trauma in these cases, and above all to establish a free drainage. The internists have added nothing to our armamentarium in the therapy of these cases, so we have to rely entirely on surgery. Morphin is to be used judiciously. In Case No. 1 one and one-half grains morphin had absolutely no effect. Drain and drain freely before the ferment has a chance to

destroy the resisting power of peritoneum, and destroy the function of the intestine and other organs. Let us hope that this domain, which has for so long been a *"terra incognita,"* be diagnosed with greater precision, and have the way to more efficient therapy, above all the surgical treatment which has proved so successful.

CASE 6. E. F., aged 49, purser. Previous history one of gastric disturbance all his life. Has used alcohol freely all his life. Said he had "used enough rum to float the Maine." Saw him June, 1910, one morning after he was recovering from a debauch. Had the usual headache, furred tongue and desire for an icecap. Ordered rest, with purgatives and milk diet. That night he was feeling well and got up and ate a very hearty meal. In two hours he was doubled up with pain. Vomited the dinner, but still suffered agony; pulse very rapid. One-half grain of codein, with an icecap, seemed to relieve the condition. The next morning I called and found beginning of jaundice. Pain returned; vomiting continued. Washed out stomach. He literally turned green from the jaundice, and as pain continued in region of gallbladder we decided to drain.

Opened abdomen over region of gallbladder and found one large stone in bladder and one small one blocking the common duct. We noticed, when removing the stone from duct, that a bloody fluid began to escape from the foramen of Winslow. On inserting finger into opening there was quite a flow of this sero-sanguineous fluid. Gastric hepatic omentum opened and pancreas exposed. It was hemorrhagic in spots. Fat globules present. Bacteriological examination negative. Patient discharged from sanitarium in five weeks, well.

We feel convinced that this was a case of infection secondary to gall duct inflammation.

CASE 4. In February, 1911, with Dr. Hoefield, I saw a healthy, vigorous man of 46 years, with a history of having been suddenly seized with a slight chill, excrutiating pain in upper abdomen and back, vomiting and marked collapse. I saw him ten hours after initial symptoms; he looked ill, face drawn and anxious. At this time he was vomiting bile stained brownish fluid at frequent intervals. Temperature, 99; pulse, 116, poor quality. Abdomen retracted wooden-like. Severe pain on pressure in epigastrium, midway between sternum and umbilicus. Liver or gallbladder not palpable. No jaundice; constipation marked.

The rapidly progressing collapse, feeble pulse and location of pain suggested a perforation, although we could not obtain any previous history of any gastric disturbances. Vomitus was not streaked with blood.

Operation was advised. Abdomen opened in median line above umbilicus. Stomach showed some congestion; was empty. General cavity packed off and the gastro-colic omentum opened. At once a quantity of sero-sanguineous fluid escaped. Feeling that we were dealing with a case of hemorrhagic pancreatitis, we made no further attempt to explore, satisfying ourselves with free drainage. The patient was shocked on leaving table. Murphy drip and stimulants brought the patient within safety limits within forty-eight hours. Subsequently, during the drainage process, the fluid at times contained fat globules. Discharged at the end of seven weeks cured.

We believe that this case was saved by prompt action, and not by inflicting too much trauma by unnecessary exploration. We have learned that the best results can be obtained by conserving time and by omitting useless procedures.

CASE 7. H. S., age 46, tailor. Previous to present illness had never had a sick day, with the exception of occasional attacks of indigestion following his Sunday meal. In October, 1911, Dr. Hoefield was called to see him. Dr. Hoefield found him all doubled up and unable to straighten

up, owing to the severity of the pain. Patient in a cold, clammy sweat; temperature subnormal. Morphin failed to relieve him, and, as the condition grew worse, we decided to open his abdomen. Median incision above umbilicus showed free fluid in abdominal cavity. Gallbladder very much thickened with evidences of a former pericholecystitis. Patient's condition did not warrant our probing the duct. Lesser sac opened. Fully eight ounces of a reddish black fluid escaped. No pus or fat globules. Pancreas hemorrhagic over its entire surface and very much enlarged.

Free drainage established and patient gotten back to bed as quickly as possible. All efforts to combat shock were futile. Patient died thirty hours after admission to sanitarium. Port-mortem showed a large, swollen pancreas very soft and friable. This friable condition is contrary to the normal one, as the pancreas is a very tough organ. Gall duct would not admit probe. Kidneys normal.

Case 5. A. T., 50 years of age, railroad conductor, was seen March 16, 1911, with a history of having fallen over the seats of his car two months previous, which caused a great deal of suffering at the time, but seemed to get better in two weeks. On March 31 he was suddenly seized with violent abdominal pain radiating to left lumbar region, then downward along the course of ureter to bladder. No retraction of left testicle. Bowels constipated; rigid abdomen; extreme sensitiveness upon pressure in epigastric region. Temperature, 100°; pulse, 110; pressure, 160. Some signs of arteriosclerosis. Urine showed small quantity of albumen, two per cent; sugar, a trace; no casts. Large quantity of urates and phosphate. His family history negative.

In this case, because of the location of pain, combined with large quantity of urates and phosphates in urine, a probable diagnosis of kidney stone was made. We did not lose sight of the fact of his previous history of injury to the upper abdomen. Dr. Hoefield remarked that he would not be surprised if we did not find some evidences of a traumatic pancreatitis.

No mass could be felt, and under a general anesthetic we made an incision in left lumbar region. Kidney and ureter exposed and found not to contain stone. To the inner side of kidney a fluctuating mass was felt. Aspirating needle showed a serous-looking fluid flaked with pus. With free incision a large quantity of this fluid escaped. Also contained fat globules. Free drainage established. Subsequently, during convalescence, two small pieces of pancreatic tissue came from the drainage. This tissue was identified microscopically as true pancreatic tissue. His convalscence was the usual one of pus cases. He was discharged six weeks later, with no sinus, and feeling absolutely well.

Case 3. Mrs. T. M., age 36, robust Malay woman. Previous history of indigestion and constipation. Taken suddenly ill in September, 1910. When I saw her she said that she thought that she was having a miscarriage, as she was unwell, and the pains were so severe, commencing at the umbilicus and radiating upward. Examination showed a small uterus and no evidences of miscarriage. Abdomen hard and very painful. As she gave a history of constipation, I ordered an icebag and purgative. Called again in about four hours; bowels had been opened, but pain grew steadily worse. One-quarter grain of morphin quieted her for the night, and in the morning she seemed so much better that I did not call again.

Two months later I was called again for the same condition, and, finding the same symptoms, I ordered the same treatment without any further examination. Next day, on careful examination, I found a distinct mass in the epigastric region a little to the left of the median line. Temperature, 99°; pulse, 110; slight jaundice. Mass very tender on palpation. Next day, under anesthesia, I opened abdomen in median line above umbilicus and found the usual congested condition of the stomach. The mass was clearly discernable. Investigation showed that it was in the lesser sac. On opening the gastro-colic omentum, fully one pint of

golden-yellow seropurulent fluid escaped. Fat globules present. Free drainage was established. Discharged in six weeks cured. Colon bacillus and Proteus vulgaris found. Tail of pancreas seemed very pale, otherwise no abnormality could be detected. One small stone removed from gall-bladder.

CASE 2. S. G., age 34, cook. Previous history of dysentery for three weeks. First consulted me for pains in upper abdomen. Had a very sensitive point about two inches below the sternum. Constipated, loss of appetite and loss of weight. Stomach washings negative. Bowels corrected and given a tonic. I did not see patient for two months after this, and when he walked into my office I did not know him. He was emaciated, cachectic, furred tongue and diarrhea. Complained of very severe pain at point previously mentioned. Abdomen below umbilicus was soft, but above umbilicus it was as hard as a board. On admission to sanitarium temperature was 102°; pulse, 150. Very much depressed.

Liver aspirated; no results. Abdominal incision made in median line showed the usual condition of congested stomach, lying against the anterior abdominal wall. On opening lesser sack fully one quart of golden yellow pus evacuated, containing fat globules. Surface of pancreas shows spots of erosion and hemorrhagic spots that bled very freely. The tail of pancreas was very dark in color and seemed on the point of gangrene. Free drainage established and shock combatted. Patient died eight days after operation. Post-mortem showed entire pancreas gangrenous, with the large splenic artery stripped from its bed. We discovered some pus in left pleural cavity. Examination of pus, both of abdominal and pleural cavities, showed Colon bacilli. This patient had never had a cough nor had he given a history of one. We believe that this was an infection through the diaphragm. Gallbladder and ducts were normal.

CASE 9. Miss E. R., age 32, school teacher. I will quote her history exactly as she has written it for me:

"The first symptoms, that developed at irregular intervals one year ago, were severe spells of nausea and vomiting, accompanied with excruciating pains in the left side of abdomen, midway between the umbilicus and ribs. These attacks were followed by prostration and rapid pulse. As time went on these spells occurred more frequently, and always at least one hour after eating. There was no relief until I had vomited. Sometimes the pain would immediately become more severe, lips turn blue and skin become cold and clammy. I attributed these attacks to indigestion and constipation, due to a sulggish liver, and was confirmed in this belief because the pains had never affected the right side of the abdomen. The last attack, which occurred the sixth night prior to operation, is indescribable. Three days previous to this I felt out of sorts, with loss of appetite, furred tongue, foul breath. My pains became so much more aggravated after each vomiting spell that it almost caused suffocation. Every abdominal movement, such as coughing or sneezing, caused untold agony. In conjunction with the foregoing, these disturbances were attended with much flatulence and colics, starting at the umbilicus and soon radiating over entire abdomen."

Examination of this patient showed a very hard abdomen, very tender. Temperature, 101°; pulse, 130. Pain more marked at umbilicus. Diagnosis of suppurative appendicitis, with some upper abdominal involvement. McBurney incision revealed a very large appendix, pointing upward, and attached to a mass corresponding to the head of the pancreas. Appendix removed, found to contain five fecal stones. Lower wound closed and another incision made higher up. On opening the lesser sack fully one pint of golden-yellow pus containing fat globules was discharged. Gall ducts showed no obstruction. Free drainage.

Subsequent history negative. She was operated on January 2, 1912, and discharged February 5, 1912, absolutely well. The lady has since told me that life is now worth living.

Case 8. White male, age 39. Seen in November, 1911, with a history of pain in upper abdomen which she attributed to some indiscretion of diet. Was informed by her society doctor that she had indigestion, and prescribed accordingly. One week later she had gotten progressively worse. Chill; vomiting; temperature, 100.5°. Doctor warned her of the possibility of gallstones, and advised operation. She refused. Condition slowly improved, and doctor discharged her in ten days, very much relieved.

At intervals of six weeks or two months she had a recurrence of her former attacks. I saw her four months after first attack. At this time she was in the throes of another attack—only more severe. Her whole abdomen was rigid, board-like, with an expression of intense peritoneal irritation. Bile-stained vomitus; temperature, 101°; pulse, 126; some jaundice and constipation.

When taken to sanitarium her condition would not justify an exploration. She was given one-quarter grain of morphin and Murphy drip. Absolutely nothing by mouth. Two days after, temperature 102°; pulse, 115, but of much better quality and volume. Under anesthesia a mass could be felt occpying the whole upper abdomen.

On opening the abdomen the stomach was hugging the anterior abdominal wall, apparently normal. Gallbladder somewhat distended and pale. General cavity packed off and lesser peritoneal sac opened. A large quantity of golden-yellow pus escaped; fat globule very apparent.

Without attempting to look for gallbladder trouble, which we feel reasonably assured was the cause of the pancreatic involvement. we rapidly drained both through anterior wound and also through a left lateral wound. Stimulants and Murphy drip. Absolutely nothing by mouth for sixty hours. Recovery in forty-five days.

Sufficient time has not elapsed for an exploration of the gallbladder trouble, and to determine the part played by the gallbladder and ducts in causing the infection. Urine contained no sugar. Colon bacilli found in pus.

Case 1. Mrs. H. L., age 29, the wife of a milkman. Has always enjoyed perfect health. I knew patient prior to this trouble, and have always remarked her robustness. In May, 1910, her husband kicked her in the abdomen. This was on the morning of the 11th. She went to bed with the pain and vomited some blood. Next morning, although still suffering with considerable pain, she got up as usual at 2 a. m. to help her husband milk the cows. After he left, about 4 a. m., she fainted and lay in the stable until 7 a. m., when the yardboy put her to bed. She would not send for a doctor, because she felt ashamed to tell him of her trouble. She lay in this condition for one week, treating herself with icebags and purgatives. I saw her on the morning of the eighth day. Temperature, 103°; pulse, 145. Considerable emaciation, and suffering agony. Morphin failed to relieve her condition. She had a distinctly palpable mass in the epigastrium.

Ether anesthesia. Incision in median line above umbilicus showed a stomach ecchymotic in spots; very soft; liver and gallbladder swollen and enlarged. Free fluid in general cavity. Opening lesser sack revealed a quantity of pus mixed with blood and fat globules. Whole pancreas hemorrhagic. Free drainage. Patient whipped herself from one side of the bed to another, we being unable to control her with one and a half grains of morphin. She died three days after the operation. We were unable to get a post-mortem.

The strange facts connected with this case was the absence of vomiting after the first day; and, secondly, the absence of superficial evidences of the kick.

Discussion on the Paper of Dr. Richards.

Dr. Adolph O. Hoefeld, New Orleans: As I have been intimately associated with Dr. Richards in these cases, I feel there are some points that should be brought out in connection with this subject. Acute suppurative pancreatitis is a disease that has been long overlooked, and it is a disease or condition that is now attracting the attention of the medical profession at large. It is easy to understand why acute suppurative pancreatitis has been overlooked, for the reason that the symtpoms resembling or pointing to the breaking down of the pancreas resemble other things. For instance, you have the pain, you have the tenderness, you have the swelling and morning vomiting, and the gastrointestinal symptoms sometimes resemble gall bladder obstruction, all of which are misleading in some cases. In one case we had symptoms resembling stone blocking up the ureter, or in the pelvis of the kidney, where no stone was found, so that pain may be referred to anywhere. A point that struck me most was the appearance of the patient, the anxious look on entering the room, a look of anxiety, begging for relief, due to excruciating pain that these patients suffer from, the pain being referred to the point of the ensiform cartilage and the umbilicus. There is pain in the back, with rapid emaciation, rapid pulse and very little temperature. The rapid pulse, with rapid emaciation, and the cachexia are points to be remembered in this condition.

In our experience the mortality will depend upon the condition being recognized as one secondary to infection of the duct, the gall bladder, and as being caused by the colon bacillus and operating early, so as to prevent necrosis and destruction of tissue and consequent death. That was illustrated in one case in which we hesitated slightly because we feared the condition, which might cause collapse on the table. We built up the patient as best we could and operated within forty-eight hours. The patient had been sick for three or four days. The patient died. I believe this patient would have lived had we operated as soon as he entered the hospital. This emaciation, we can naturally understand, is due to absorption of toxic material, blocking up the channel and causing obstruction in all these cases. We have had it in all of the cases.

Observations of Vesical Calculi.*

By L. SEXTON, B. S., M. D., New Orleans.

Dr. Ben Johnson of Washington, D. C., 1895, by corresponding with 400 representative surgeons in the South, found reported 1,088 vesical calculi, viz.: In Alabama 10, Arkansas 11, Florida 28, Georgia 90, Kentucky 56, Louisiana 19, Mississippi 6, North Carolina 126, South Carolina 66, Tennessee 128, Texas 98, Virginia 430.

About 1 per cent of the autopsies at the Charity Hospital show urinary calculi of some kind, negroes to whites about one to five.

Frequency of urinary calculi is given by Dr. H. B. Gessner in the Charity Hospital in twenty years 158: white 124, colored 34. During twenty-five years of general practice we have had ten cases of urinary calculi. Some of the points of interest in connection with these cases and their rarity will be the excuse for this paper.

It was originally thought by the laity that drinking hard water was the cause of stone in the bladder. In Kentucky, Virginia and Tennessee, limestone regions, where much of the water comes through a lime-bearing strata, being saturated with different lime and alkaline salts, vesical calculi were supposed to be more frequent than in communities where soft water was consumed. It would seem reasonable that the larger ingestion of these salts might tend toward the formation of stone in the bladder, but statistics do not bear this out. It must be remembered that these alkaline waters must run the gauntlet of an acid stomach and all the secretions in the body, that the urine secreted from the blood has very little to do with the alkalinity of the water consumed.

Again, from the frequency of stone in the bladder in Virginia, Tennessee and many tropical countries, as India, where cistern or rain water is largely consumed, or where shallow well soft water is used, there seems to be about as many vesical calculi as in the countries where hard water has to be consumed. In our judgment, stone in the bladder very often has more relation to the meat and rich nitrogenous food which we eat and the alcoholic and malt liquors we drink rather than the water we use.

Causes: Many cases of stone in the bladder are preceded by nephritic colic, in which the uric acid calculi form in the pelvis of the kidney, descend through the ureter into the bladder, where,

* Read before the Louisiana State Medical Society, Thirty-third Annual Meeting, New Orleans, April 23-25, 1912.

ILLUSTRATING DR. SEXTON'S ARTICLE.

as the saying goes, "the rolling stone" gathers the phosphates and uterus mixed with mucus from the bladder wall, and thus enlarges from the small uric acid crystal to the larger bladder stone.

Causes of stone are also constitutional conditions tending toward lithiasis or oxaluria. They are very common in children the first ten years of life and in elderly men. They are very rare from ten to twenty-five, the active age, and in women on account of the large size and shortness of the urethra. They are said to be very common in India and Arabia and in all tropical countries, where such a large amount of fluid escapes from the body by perspiration that the urination does not dissolve or wash them away while they are small.

Uric acid, the nucleus around which so many stones form, may follow the eating of nitrogenous food, alcoholic drinks, imperfect digestion, torpid liver, deficiency of fresh air and lack of exercise. Any increased metabolism, as in violent exercise, or in fevers; under such conditions urea is converted into uric acid or its salts. These conditions are quite common in gouty and rheumatic subjects.

Uric acid calculi are the basis of three-fourths of bladder stones. The amorphous phosphate stone usually follows some infection of the urinary tract or septic condition in the bladder. Uric acid and oxalate calculi produce the least disturbance upon the bladder wall; they begin in the pelvis of the kidney and enlarge very rapidly, after their descent into the bladder, by the accumulation of phosphates and mucus which they gather with age. They are the principal stones found in the bladders of men past middle life, particularly if they are large drinkers, gormandizers, or with gouty and rheumatic tendencies. Uric acid sand or gravel of a reddish color stains the chamber in which the urine is permitted to stand; hence the uric acid calculus is brown in color, dense, usually smooth or slightly nodular surface; on cross section it shows rings like the grain of a tree and the outer lamina is usually made up of phosphatic material.

The mulberry calculus, so called on account of its irregular or nodular appearance, is very hard, darker in color than the other stones, owing to its admixture with blood. The urate of ammonium calculus resembles the uric acid, but is lighter in color. Any stone or foreign body in the bladder becomes coat-

ed with phosphatic deposit, when the urine is alkaline from chronic cystitis. The nucleus of a stone may be a blood clot, some foreign body, renal calculus or inspissated mucus. The laminated portions of the stone are superimposed layers of oxalate of lime, uric acid, urate of ammonium or phosphates, all layers held together by vesical mucous and phosphatic material, a sort of cement by which the stone is built up or made larger. The number of stones may vary from one to 100; where there are many stones they are usually small and faceted.

As said before, gouty, rheumatic subjects, patients with uric acid diathesis, or large meat eaters and beer drinkers, patients with cardio-vascular-renal complications are the ones most likely to become afflicted with bladder stones. People with sedentary habits, lack of exercise, desk and office occupation, no athletics, are the sort of subjects which seem to secrete the preponderance of urates and phosphates, the principal salts in the composition of bladder stones. The free drinking of water, milk or fluids of any kind in younger subjects tends to wash out any of these urinary sediments which accumulate in the most dependent portion of the bladder, just as they do in the bottom of a vessel. They are washed out by free urination, but in older or strictured subjects, in which the flow of urine or smaller stones which might pass out if the urine is not impeded by enlarged prostate or strictured condition, predisposes to the formation of stone in the bladder. The enlarged prostate gland may hinder the diagnosis of the stone by the stone becoming encysted behind the prostate gland in the trigone of the bladder, so that the introduction of an ordinary sound may not come in contact with the stone. It is, therefore, necessary that in examining for such stones imbedded in this position in the bladder a stone searcher, with a short, sharp curve, which can be turned back into this sulci in order to detect the stone, which otherwise might be overlooked.

Symptoms.—The common symptoms of stone in the bladder are too well known to discuss at any great length here, further than to refer to some of the more prominent ones. With stone in the bladder its walls are hypertrophied, its mucous membrane may be ulcerated, which inflammation may extend up the ureter to the kidneys, producing nephritis.

Cystitis results from irritation, imperfect asepsis, the urine is

ammoniacal and very irritating. Atony of the bladder may be caused by too large a cut into its wall, violent cystitis and in very old people.

Pain in the head of the penis, frequent urination during the day and night, especially after rough exercise, as riding in a wagon or on horseback, the last few drops of urine being stained with blood, getting up at night many times, nervous feeling when the bladder is entirely empty, the dribbling after urination has ceased, sudden stoppage of a free flow of urine, chronic cystitis, painful urination, blood, mucus and albumin found in the urine are some of the more or less prominent symptoms of nearly all cases of vesical calculi.

The bladder extends higher up in the abdomen in children than in adults; the urethra is in the most dependent portion. The mulberry calculus is found most common in children. The irritation of a stone in the bladder of a child may cause incontinence of urine, and far more inconvenience than in the adult.

We recently had a case presenting the larger portion of these symptoms which had been treated for stricture and enlarged prostate without the stone being detected; but from the history of his getting up at night and the sudden stoppage of urination we made a careful search when we discovered the distinct click of the stone the first examination, which was successfully removed by a suprapubic operation, from which a large stone was withdrawn. It is, therefore, necessary when any of these common bladder symptoms are present to go minutely into the examination with an X-ray, a cystoscope, or a stone searcher, until we are sure that no calculus is present, as it is rather embarrassing after a long treatment for cystitis, enlarged prostate or some other bladder trouble, to have another surgeon find and extract a stone.

Just a word about the method for operation before closing.

Lithotrity is the operation of choice when the stones are under two inches in their long diameter, and are composed of phosphates and urates. The subrapubic operation is to be preferred if the prostate gland is enlarged, if the stone is too hard to crush, when they are multiple and sacculated, when from cystitis it is necessary to drain the bladder; in other conditions it is better to crush the stone and use the evacuator until no fragments are left which may form the nucleus of another stone. We are personally more familiar with and prefer suprapubic operation, in which you can actually see the pathology of the parts, instead of working through

the perineum in the dark. There should be from four to six ounces of urine in the bladder when the lithotrite is introduced. The urethra should be dilated as large as possible, in order to admit a good-sized instrument; the lithotrite should be kept open after it enters the bladder, as the stone may fall into its grasp at any time. when it can be easily crushed by tightening the screw on the end of the instrument; the blades should be well fenestrated, in order to hold and crush the stone after grasping same. Introduce a large evacuating catheter after the lithotrite has been removed; the evacuator should be filled with boracic acid solution and pumped into and out of the bladder until all fragments have been removed. It becomes necessary to reintroduce the lithotrite in some cases, in order to recrush the larger fragments of the stone.

The contraindications for litholapaxy have been given as encysted calculus, a stone two inches in diameter, an oxalate of calcium stone which it is impossible to crush, urethal stricture, large prostate, sacculated or contracted bladder.

Median lithotomy is the operation of choice by some surgeons when cystitis and enlarged prostate require removal and draining. The suprapubic operation is contra-indicated in a small, contracted, septic bladder with diseased walls. Any incision through the perineum is more or less damaging to the sexual function, and this even in old subjects should be carefully guarded. There are some cases, however, in which an enlarged prostate may be removed at the same time, with the median perineal incision, but in the vast majority of cases the suprapubic incision leaves the parts in better condition and the bladder with less traumatism, and the sexual function, if any remains, undisturbed. The prostate is also easily removed through this incision.

In suprapubic operations hemorrhage is much less likely, and if drainage is necessary it can be accomplished through a catheter, though not so well as through the perineal route. In some of the cases where there is not any violent cystitis or bladder infection it is possible to close the walls after all the debris has been removed by a Lembert-Zerney suture through muscular coat, closing the incision in the bladder just as in any other wounded viscera. It is hardly necessary to remark that thorough bladder asepsis irrigation with boracic acid should precede any surgical operation on the organ.

The treatment should not stop with removing the stone, a prohibition of malt and alcoholic drinks and nitrogenous food, the free

use of alkaline waters, and an abundance of exercise and fresh air should constitute the after treatment of an operation for stone in the bladder.

In the case of the stone just exhibited we distended the bladder with ten ounces boracic acid solution, applied a rubber around the penis, inserted a rectal bag or tampon above the sphincter. We then made a three-inch longitudinal incision in the hypogastric region, ending just over the symphysis pubis; this opened down upon the prevesical connective tissue, which we divided, pushing up the peritoneum. We caught the bladder with forceps, inserted two suspension sutures, then divided the bladder wall in the median line, catching the edges of the bladder with forceps on either side, inserting the index finger we found the stone in the trigone of the bladder, removing it with the fingers. We irrigated the organ with warm boric acid solution, removing all debris and mucus. We then closed the incision in the bladder wall by Lembert-Zerny sutures, adjusted the muscles and skin, draining the bladder through a catheter to which was attached a long tube leading to a basin under the bed, and the wound by small gauze drain in its most dependent portion. All the patients made a speedy and uninterrupted recovery.

Intestinal Obstruction. Report of a Case.*

By G. L. STIRLING, M. D., Baton Rouge, La.

Among the cases of intestinal obstruction which, like all physicians, I have had occasion to observe, my practice afforded, recently an operative case that presents some features of interest:

Mrs. J. B., a woman 30 years old and the mother of several children, came on July 1, 1911, to be relieved of obstructed bowels. She gave a history of having undergone, several years before, quite an extensive abdominal operation, of which she did not know the nature, except that it was undertaken to afford relief for female complaint, and had required nearly two hours for its completion. After this operation she had enjoyed good health until three or four days before we saw her, and at which time she became affected with violent pains in the abdomen, and nausea, and a complete inability of the bowels to move. These symptoms persisted in spite of quite vigorous medical treatment.

When she arrived at Baton Rouge and was placed in the sanitarium her symptoms were as follows:

Abdomen, considerably distended, tympanitic and painfully sensitive upon pressure; vomiting of almost stercoraceous matter at intervals of about forty minutes; temperature, 99½°; pulse, 110; peristaltic contractions visible, through the abdominal wall, with varying periods between them.

After several purgative enemata, and the administration of

* Read before the Loouisiana State Medical Society, Thirty-third Annual Meeting, New Orleans, April 23-25, 1912.

atropin by needle, with no alleviaton of the condition, I proceeded, with the assistance of Dr. R. C. Kemp, to open the abdomen.

The coils of the intestine, we found distended, and adherent in a number of places, and we had to manipulate them considerably before the point of obstruction was revealed. This we discovered to be in a mass of intestine, matted together and wedged into the posterior cul-de-sac, and firmly adhered to the posterior surface of the uterus.

In spite of the gentlest and most careful manipulation in breaking these adhesions, the instestine ruptured at the very bottom of the cul-de-sac, and about one-half of an ounce of the intestinal contents escaped. We promptly mopped out, as thoroughly as possible, the offending matter, and brought the point of rupture to the abdominal opening. It then became apparent that, at the ruptured point in the intestine, was a spot, covering an area about one inch in diameter, of a dark grayish blue color, and too friable to retain sutures. Several other spots of this kind—the whole involving about twelve inches in length—were found on that part of the intestines.

By this time the patient's condition was such that we realized that she could not stand the further shock of a resection and anastomosis. We, therefore, decided to resort to the method suggested by Dr. Parham in a paper read at Shreveport, an enterostomy, hoping thus at least, to relieve the acute toxic condition, even though a complete cure did not result.

In pursuance of this purpose, an umbrella catheter was inserted in the rent in the gut, and was secured by a purse-string suture. Using the catheter as a tractor, we held the injured viscus up, and sutured it to the peritoneum. The abdominal wound was then closed around the projecting tube of the catheter.

After letting as much as possible of the fecal matter flow through the tube, the wound was dressed, and the patient put to bed. The interior of the intestine was then irrigated through the catheter, with hot saline solution. This irrigation was repeated; first at intervals of two hours, and later at gradually lengthening intervals, until the end of a week, at which time it was discontinued and the catheter removed, and rectal irrigation substitued.

From the time that the patient recovered from the anesthesia, she suffered no pain, and the abdomen was not at all distended. The only discomfort which she experienced was that occasioned by the deluge of fecal matter which came through (and sometimes around)

the tube, which necessitated frequent changing of the dressing.

The patient's condition progressively improved, and the wound closed spontaneously in about one month; by which time we became convinced that a cure had been effected without the need of any further radical operation.

When we last saw the patient, about six weeks ago, or nine months after the operation, she was in perfectly good health, and, in our opinion, presented a striking illustration of the value of this kind of operation under certain circumstances, and more especially of the extremely practicable technic suggested by Dr. Parham's admirable paper above referred to.

Orleans Parish Medical Society Proceedings.

Address of Incoming President.*

By HOMER DUPUY, M. D., New Orleans, La.

This is an occasion of supreme delight, satisfaction and pride of your president-elect.

Not unlike the egotistic Kaiser William, who reduces the whole universe to "God, Me and Myself," my remarks will necessarily be punctuated with frequent allusions to the "Ex-Librarian, the President-elect, and Myself." This seeming egotism is forced upon me by my ambition to encompass in one address the official utterances of both the ex-librarian and the president-elect. Here is, indeed, a task which I cannot escape and some unintended infliction which you must accept. I am human enough to indulge in the flattering belief that during my long term in office as librarian, there were some distinct, permanent, and epochal advances in the growth of our library. A retrospect will show how from a nucleus of only 278 volumes in 1893 the accession of books swelled the total in our library to 3,600 at the end of the year 1901. During this crucial period of its infancy it is noteworthy that Dr. Sidney P. Delaup was a guiding spirit in furthering the development of our library. As posthumous praise offers but little consolation to the one intended, while Dr. Delaup is still in the flesh, I wish at this opportune moment to give full expression to the society's acknowledge-

* Read before the Annual Meeting of the Orleans Parish Medical Society, January 13, 1913,

ment of its indebtedness to him for laying a foundation which made possible the splendid fruitage which we are now enjoying. Dr. J. A. Storck, another ex-librarian, must also be credited with doing his full share in the difficult task of fostering the growth of a library on inadequate financial sustenance.

Despite all financial obstacles our library has reached a lusty childhood—full of radiant hope and budding promise. And there is glory enough for all the ex-librarians in this magnificent result. You now have spread on your library shelves an intellectual menu, of ancient and modern flavor, in the form of 7,000 bound volumes, and 5,000 unbound volumes, a mental pabulum fit for Esculapius himself. This notable increase in the number of added volumes during my tenure of office was due, to a large extent, to the addition of valuable and rare works from the New Orleans Polyclinic and the Charity Hospital collections.

The retiring librarian esteems it a privilege to extend a full meed of praise to Drs. Chassaignac and Dyer, who for many years have contributed so liberally in journals and in books that they must be regarded as most pronounced factors in the upbuilding of our library. The president-elect hopes for a continuance of their generosity. I now leave to my successor in office 12,000 volumes, including the bound and unbound volumes, indexed and cross-indexed by my valuable assistant librarian, George Augustin.

To have aided in this fruitful consummation was service, honor, and glory enough for me. I had hoped to retire into the rank and file to pursue there the quiet and even tenor of my way, but with a generosity and a unity of sentiment, for which I am most grateful, you have thrust upon me the presidency of this society. A leadership I conceive it to be, for the men who served this society most efficiently as presidents are shining exemplars of a leaderhsip expressed in a strenuous endeavor and a constant activity to keep away the killing frost of failure. But the promiseful acorn planted in 1878, through tender care, has fructified, and has grown into the sturdy and majestic oak of the present. In the fullness of our strength with a large membership, representing the very flower of the local profession, with a splendid domicile of our own, with ideals and purposes which inspire us to worthily serve science and humanity, we cannot be too strongly impressed with a sense of our own importance as an organization. On such an occasion we can best realize the society's worth to the community, and

in fact, to the whole commonwealth, when we reflect that our very civic life is touched at many angles by the myriad influences which radiate from such a centre. Not only do we enrich ourselves by the knowledge that comes from illuminating discussions of medical topics, but we also minister to the larger economic questions of public health and sanitation. By genuine service we have as a society, in true Esculapian spirit, striven to be our brother's keeper. In all public emergencies we have proven equal to the responsibility.

Let me but recall to you that a petition to the General Assembly of Louisiana in the interests of State Medicine was first launched by this society in 1881. This was a movement of momentous importance, as it raised the standard of medical practice and it protected the innocent public. Should we not, with pardonable pride, point to the year 1894, when this society prepared a resolution for the daily press in which it specifically assured an anxious public that the serum antitoxin treatment of diphtheria was worthy of confidence? Shall we not perpetuate the remembrance of the part played by this society in the memorable and victorious struggle with the yellow fever problem in 1905? Shall we not refer to our own Milk Commission, a recently created institution, for you to realize what we are doing for those most precious charges of human society—our infant-life and child-life? It was only last year that we took the public into our confidence and told them the true story of the plague with all its tragic horrors. But we gave a message of hope when we pointed out the means of prevention and protection.

In the hurry and stress of the fleeting hour is it not a most gracious and fitting act to pause and to gratefully remember those enthusiastic, highminded and science-loving physicians, who made possible this influence, power and prestige of our society? While there were forty-six founders the records leave no doubt that it was chiefly Turpin, Herrick, Davidson, Jamison, Bemiss, Logan, Richardson, Miles, Chaille and the still living E. S. Lewis, who in 1878 took the most active part in the generation, parturition and delivery of this society.

This brief retrospect is strong testimony that our past is crammed with mighty achievements. We have been doing things, but we are no greater than our founders meant us to be, and let us therefore catch the note of inspiration from every mile-post in our history and move on to higher things.

On the very threshold of my administration two things loom up before me as of transcendent importance—the redemption of bonds and a liberal appropriation for the library. I am confident that the library is really our most valuable asset. In fact the specific reason for building these sumptuous quarters was to house our valuable collection of books. But our library is seriously handicapped by lack of funds. In fact, if it is to fulfill its mission for a reasearch work and keep abreast with the times, it needs not less than $1,000 a year. To increase its usefulness we propose to keep it open every night from 7 to 10 p. m.

To redeem our bonds is a sacred obligation to the bond holders. We have not redeemed a bond. With our present income there is no prospect of doing so. By no manner of calculation will the figures allow us to do so.

Now, no one but a mental myope can fail to see that the only possible solution to this vexed question of inadequate funds, made necesary by our more recent achievements, and by our ambition to do still greater things is, some form of increased taxation. This must come about. When I consider the fibre and stamina of the officers who are to collaborate with me in the administration of your affairs, and when I further consider that every man in the ranks will do his full duty when called upon, I feel that the future of this society in 1913 is radiant and secure.

Annual Oration: Faith and Health.*

By RABBI MAX HELLER, New Orleans.

To any earnest, thoughtful minister the opportunity of speaking to physicians must be highly welcome. There is something in the training, a great deal in the life experience, of physician and minister which places them in a mutual attitude that is only superficially antagonistic which ought, in a juster view, to render them complementary to one another. In many a genial household the physician and the minister meet, not only by the bedside of the suffering, but in the most joyful of family events, as the two intimate and well-loved friends, each of whom, in a different way, enjoys the grateful confidence and enters into the innermost life of that fireside. For the conscientious minister it is impossible not

* Read before the Annual Meeting of the Orleans Parish Medical Society, January 13, 1913,

to devote some thought to the ills and pangs of the body; they form much of the substratum of spiritual life; they give rise to innumerable questions that puzzle and test and strain one's faith. The physician in an age of the overlordship of scientific fact, is now and then apt to look superciliously upon the realm of things spiritual, prefering to hold by the things that can be seen and touched, that are subject to calculation and experiment.

Perhaps it is out of this very overemphasis upon the material factors of health, upon operation and treatment, upon climate and remedy that we have seen rising, in these latter days, a number of more or less parallel movements, such as Christian science, mental science, magnetic healing, miracle-cures which have their roots in vague confidences, in half-mysterious hopes and yearnings the beginnings of which are lost in the dim dawns of mankind's childhood. Physician and minister share a friendly interest in the strange cases when some pampered child of indulgence, some sensitive victim of nerves, having unsuccessfully run the gauntlet of medicine and surgery, of every imaginable method of treatment and trial of climate, throws himself, oftener herself, at last into the arms of soothing paradox and cheering enigma, of high-sounding phrase and daring pretence, to find wonderful peace in an iridescent dream and an alleged surcease of all pain in a pink mist of exquisitely spiritual nonsense.

It is in these aberrations, among many other concerns, that physician and minister discover a certain community of interests. The physician finds human life endangered by a seductive error which has not only its fascinations, but which seems, occasionally even to confer benefits. The minister sees religion dragged down to the function of the mercenary quack, the loftiest of spiritual concepts degraded, to lay a false and pernicious stress upon the mere matter of physical wellbeing. Neither minister nor physician cares to dignify a passing fad by training upon it the heavy guns of serious warfare; but to both of them it can only be profitable, with themselves and with those that look to them for guidance, to gather their observations, to clear their convictions as to the real relationship between faith and health, as to the core of valuable truth that lies enwrapped in these alluring and only seemingly novel shells of dangerous error.

What can a man's faith do for his health? When I speak of faith I am referring to one certain aspect of what we are accustomed to

designate by the more technical term religion. In every fully matured religion there are the dogmas which define theological belief, there are the symbols and ceremonies which typify religious observance, there are the precepts and principles which demand certain standards of moral conduct. All of these derive their real strength from, all are borne, as it were, upon the wings of faith, of that spiritual attitude, of that strong assurance which accepts and embraces belief not by mere passive submission to authority, by mere neutral assent to tradition, by yielding to habit and environment, but by a glad and spontaneous reaching out of confidence, to that which connot be proved, by a temperamental hopefulnes in the wisdom and the benevolence of the world-order.

It is just this psychological aspect of the religious life which we are prone to overlook, largely because we have been cast upon an unreligious age in which saintliness has become a myth and piety a meaningless term, in which the young and the immature cannot imagine any religious fervor except that of blind fanaticism or hysterical excitement, wherein the old type of strong, unfaltering, pervading faith has largely died out.

What are the real points of interaction between faith and health? I do not mean to examine, even in a desultory way, the wide field of the relationship between mind and body, nor again do I desire to limit my inquiry to the possible influence on health merely of religious faith. To me the spiritual attitude of genuine, vital faith is one that encompasses not simply religious exercise, but the whole of a man's soul-life, to which it must lend tone and color.

In one shape the element of faith enters most patently into the life-work of every physician. His success with his patients is largely conditioned upon the confidence he is able to win, confidence in his knowledge and competency, faith in his earnestness and good will. Such faith is not a simple matter of high reputation or even of personal magnetism; it calls, in the patient, for a certain optimism in the judging of his fellow-man, for a strong vein of loyalty, for the disposition to believe in the sincerity and good-will, as well as the capacity of those we deal with. That this species of faith is essential, not only to secure the patient's obedience and compliance, but to favor and accelerate his cure, that such faith is dependent not only upon the physician's sense of mastery, upon his calmness of self-confidence, upon his personal magnetism, but largely upon the patient's temperament and disposition, is hardly

subject to dispute. Such strong faith may be given to an individual and the bond it will create can only be beneficial while it lasts; but this species of faith is sometimes of an exclusive character, given to one special man, withheld from all others; and physicians encounter serious difficulties when they are to win for themselves the confidence that is jealously and stubbornly withheld from all others.

The value of such implicit faith, of course, is by no means limited merely to the ready obedience which it prompts, to its leverage towards an easy enforcement of discipline; it gives rise to a hopefulness of outlook, to a comparative freedom from fear and uncertainty which cannot but favor recovery where that is possible, or at least ease suffering and prolong life, when all hope of saving an endangered life has passed.

As against this sense of security and trustfulness which is so plainly illustrated in this man-to-man confidence we must weigh the various emotional handicaps opposed to the attitude of faith that operate to retard recuperative powers. The most superficial observation teaches even the layman in how many forms that which might be called unfaith tends to impede the processes of restoration. From the mere restlessness of an uneasy imagination to the tortures of open rebellion against the dispensation of disease and pain, there are many gradations to prove how great a possession is the philosophy, whether due to temperament, education or self-conquest, which reconciles itself to the inevitable and can look calmly into the face of suffering.

This strange lesson of the value of faith, as in some ways superior to knowledge, is brought home to the minister as he observes the patient's soul-life, in many ways. There is the patient who is happy in the ignorance or misconception of the nature of his ailment. He may be of humble class and utterly inexperienced; the mere notion that his complaint is of a commonplace variety, the mere fact that he is unable to brood over it or disquiet his fancy by gruesome pictures of it, constitutes, at least, a negative comfort. It is a species of primitive faith, as acceptance of one's lot as not being out of the common. As against this, there are the painful horrors of the educated, imaginative person, who disquiets himself both with what he has heard or known of the terrifying possibilities of his ailments, or even with imaginings of disordered processes and organs. There is the difference between the

eager, active mind that can turn its back upon its own dangers to dwell upon occupations that engross it or upon the concerns and needs of others that are dear to it; and between, on the other hand, the brooding, self-centered, self-enslaved mind which aggravates every morbid influence as it dwells upon the gloomy side of things. There are the reviving powers of memory and of hope, of peaceful and satisfying events and scenes from the past; of cheering, happy anticipations for the future; these, too, are part of an interpretation of life which stresses upon the lights and passes by the shadows.

But not only in sickness, but even in comparative soundness of body there are elements of harmony with the world-order, belonging to the class of faith, which seem essential to the completeness of health. There is a belief in the intrinsic benevolence of nature, which is instinctive with some people, an acquired virtue with others; the feeling that sun and wind, that rain and snow are wholesome agents, that moderate exercise and ordinary labor are privileges rather than burdens, the sense of assurance that the enjoyment of food and drink in moderation is not only harmless, but beneficial; all these are forms of natural faith, the lack or loss of which is a serious misfortune. Here we begin to approach the field proper of religious faith, of that particular form of spontaneous confidence which, consciously or unconsciously, articulately or inarticulately, accepts the world-order as benevolent.

With the faith in the kindliness of God's elements corresponds most closely the faith in the soundness and strength of one's own constitution, of the organs and the processes that regulate one's own physical life. There may, of course, be a sense of physical sin to stand between one's conscience and such faith, but even aside of such disturbances there may be varying degrees of faith and unfaith, and it may be difficult to say how far the confidence in nature's powers of maintaining and restoring the equipoise partakes of a religious complexion. That this species of physical self-confidence is of great import for the maintenance of health can hardly be subject to dispute.

What shall we say, then, from the minister's point of view and experience, as to the possible force of religious faith, measured in terms of physical health? It is in religious ages and with people of dominant and pervasive religiousness that one can study the wonderful power of faith to brace the will and to fortify the heart against ordeals of suffering of any kind, whether spiritual or bod-

ily. I remember hearing of an instance when a pious Jew, whom I subsequently met, was bereaved by a theater fire at one blow of five of his descendants, and bore his sorrow with calm resignation, convinced that it had been laid upon him by a kind and wise decree. Such rocklike faith can support physical pain, as well as mental grief. If the pride of the savage enables him to support unspeakable tortures with an unmoved countenance, so can the martyr, by the testimony of countless witnesses, meet the most cruel of dooms with a radiant smile. My sainted father was in the habit of relating a strange tale, which is said to have had scientific corroboration, to the effect that an orthodox Jew who had refused to permit amputation of the arm which served for his phylacteries, succeeded in saving his arm, despite authoritative prediction to the contrary.

There is no need for any explanation on the grounds of miracle to account for such phenomena; the ordinary psychology of empiric observation seems ample to retain them in the realm of natural events.

Nor is there occasion either to deny the existence of matter or to claim omnipotence for the spirit, in order to vindicate a reality for physical benefits from faith. Perhaps, we may hope, that after the desultory reasoning that has preceded, that whenever medical treatment will have progressed far enough to embrace systematic mental diversion along with physical upbuilding, whenever the student of the soul-life will become full colleague and aid to the pathologist and surgeon, that then we shall reach mature and balanced convictions regarding the just relationship between health and faith.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The Louisiana State Society Meeting.

The State society meets in Baton Rouge April 22, 23 and 24. The Journal calls attention to the list of papers on the program, printed elsewhere in this issue. It is indeed an attractive group of contributions and enough to attract a large gathering.

More than this, we understand that our Baton Rouge confreres are ready to receive us with open arms and expect us.

Each year the Journal expresses the view that the preliminary program should issue earlier, and now, again, we repeat that such delay is not our fault. We depend upon the proper sources for such items of information and print them as soon as we can after we get them. Having thus relieved our mind, we join in the wish of the Baton Rouge contingent of the society in hoping for a large and successful meeting.

Prophylactic Tattooing.

Ever since men have realized the gravity of the ravages committed by syphilis, attempts at prevention against this terrible disease have been made. An editorial in a recent number of *Le Monde Medical* of Paris speaks interestingly on this subject.

After explaining that he does not refer to measures of a mechanical turn, the false security of which is accompanied by damage to the very function which is supposed to encourage the risk of infection, the author describes the latest suggestion and relates the occurrence leading up to it.

It is no more nor less than tattooing. Until now this proceeding has been held liable to provoke syphilis rather than to nip it in the bud. It is well known that dirty needles handled by an infected person have already conveyed the malady. Yet such is the prophylactic and this is how the idea originated.

Mr. Aoki, who has made quite a study of tattooed persons, came

across a man who had thought it artistic to have the skin of his arm incrusted with the image of a superb serpent, with a blue back and a red belly. This man contracted syphilis two years after this esthetic intervention and the snake naturally suffered from the infection, but in a manner instructively irregular. Papules appeared on the back of the snake, while the belly remained mysteriously free.

In seeking the cause of this strangely selective process, Mr. Aoki first thought that the particles of China ink used to give the blue tint had kept up some chronic irritation capable of causing the spot so ornamented to be one of least resistance. However, as the particles of cinnabar which gave the red coloration are more irregular than those of China ink and hence should be even more irritating, a different explanation had to be sought.

It was concluded that the phenomenon could be explained by the antisyphilitic action of cinnabar as a mercurial. Aoki, wishing to determine the fact experimentally, took a poor innocent rabbit and tattooed its scrotum, one side blue with China ink, the other side red with cinnabar. Thirty days later he injected both sides with a secretion rich in spirochetes. On the blue side the injection produced ulcerations in which the treponema could readily be demonstrated. On the red side, after the subsidence of the edema caused by the injection itself, no result followed. Evidently the treponema could not develop in the soil protected by the cinnabar.

The ingenuous prophylactic application deducted from the experiment can be foreseen. Since on skin so tattooed the syphilitic micro-organisms have no chance of life, cinnabar so employed is the ideal preventative. By applying it in this manner on the spot which is most likely to come in contact with dangerous syphilitic lesions, contagion is almost assuredly avoided. The process would then consist of the tattooing of the penis, or at least of its most exposed parts; the result, security.

The author disclaims any intention of considering all the possible objections to the method, the least of which would, perhaps, be the strict limitation of the tattooing, which would thus leave exposed many points just as liable to contamination, yet admits that the enthusiasm of patients would probably be restricted. He thinks this is too bad, as by varying the mercurial salts, and in consequence the coloring, the most happy and artistic combinations might have been obtained.

Although the procedure is difficult of application, it must be admitted that it is both ingenious and original. Still these qualities, in practise, are, alas, not sufficient.

The Practise of Medicine.

When Hippocrates anciently formulated the doctrine of medical practise as ethically considered, the scope of his teaching could have been stated in few words. The oath of Hippocrates embraced most of this and its tenets covered the golden rule, with enough variations in a minor key to broaden the practise of the golden rule.

Nowadays, the practise of medicine has grown out of its ancient spirit in such degree that the ethics are difficult to formulate, and when formulated more difficult to accept, if we judge by every day observation.

Precept and example both in olden days aimed at inculcating the ideals of morals in the intending physician, and even though at all times there have been black-and-tan types in the pack, for the most part the profession in medicine has kept pretty close to earlier ideals.

It has required, however, in these latter days of utilitarianism many safeguards to hold a proper view of practise. State laws have been invited and promulgated to regulate the right to practise, while in some degree determining the qualification. In some States the law goes far enough to provide for revocal of license in case of bad conduct, but this is not general, and even where it exists, there are few States in which the punitive clause of the law is put in force.

Meantime the individual begins and proceeds in the practise of medicine, with vague ideas of what "ethics" mean as applied to medicine, and every now and then, when and if he thinks, he wonders why there cannot be some better knowledge of this topic. Many medical colleges announce the existence of a chair of "Theory and Principles of the Practise of Medicine," and yet no curricular evidence exists through which it is possible to locate those principles which concern the ethical questions in practise.

So it is that now and then some less strong brother wanders along lines of least resistance and falls without the pale, perhaps like the lost sheep, crying, when none can hear, after the tradi-

tions which he could not share, and hungry for a righteousness denied him, because it was too late to learn the way.

Medical schools cannot supply consciences, but they may develop those already born, and the task should be undertaken systematically, so that even before the license comes the intending physician may realize some of the mighty obligations he assumes in applying his medical degree to actual practise.

So many men with an agle of genius in their make up spend the best of that illustrious possibility in places too dark to be illumined, and all because they have never had the way pointed out.

There exists at least one published "Code of Ethics," in which rules of conduct are set forth and in which the amenities are discussed, but nowhere is there any of that spirit which breathes aloud in unmistakable tones in every paragraph of the Hippocratic Oath—the spirit of the calling of the physician, which so often in these modern days is suborned to the trade in medicine.

An up-to-date medical journal, mayhap, has no particular privilege to step aside from current ways in any such exordium as we have essayed, but with the growing of science in the fields of medical endeavor there may be permitted, now and then, a little leaven of righteousness, even among those of us who are purveyors of all sorts of medical thought.

When we read the daily press and find it full of the discussion of the vagaries of medical men, often misguided in their efforts at a humanitarian purpose, there is need of some direction. No more striking example has ever been afforded than the present spectacle of a foreign physician, pretending to a scientific cure for tuberculosis, perhaps having the proof of his claims, engaging a whole country with the diversion of a dissension directly derived from his own lack of ethical practise. The public is governed more by facts than by morals, and there must be a great lesson read between the lines of this case, which is either that of an outright fakir or that of a misguided evangelist.

Let us pick up the threads of our philosophy and weave them out of a tangle of mixed habits into a composite or real practise, colored by the central motives of a profession, the history of which has been punctuated by great spirits of men who have gone before, leaving monumental evidence of their righteousness in a calling which is the highest yet on earth.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of Dr. P. Michinard and Dr. C. J. Miller, New Orleans.

Surgical Treatment of Uterine Hemorrhage During Pregnancy, Delivery and Childbed: At the International Congress of Obstetrics and Gynecology, held at Berlin in September, this was one of the main questions for discussion. Couvelaire of Paris arranged a brief summary of the methods used among the French obstetricians and gynecologists. The following condensed report is given:

Under the general term "surgical treatment," we include:

(a) Direct surgical hemostasis by hysterectomy.

(b) Hemostasis realized automatically by the uterine muscle, after evacuation of its contents by hysterotomy (hysterotomy through the abdomen and hysterotomy through the vagina).

Hemorrhages Arising from Detachment of the Placenta Inserted on the Inferior Segment. Most of the French accoucheurs have up to the present remained faithful to the purely obstetric methods: Wide rupture of the membranes.

Eventually introduction into the interior of the widely opened uterus of an incompressible ball of Champetier de Ribes, or in default of the ball, simple turning without immediate extraction (Braxton Hicks).

The complete statistics published at Paris, Lyons and Toulouse in the last few years render it impossible to form an exact idea of the results obtained by the execution of this therapeutic method:

	Cases.	Died.
Pinard	162	10
Champetier de Ribes	67	6
Bar	153	14
Maternity Hospital of Lyons	167	13
Ferre	35	4
	584	47

Or a gross mortality of 8.2 per cent.

Therefore, for women bleeding from the fact of the vicious in-

sertion of the placenta, the mortality in the French clinics during the last twenty years has been about 4 per cent.

Infection and violence during the evacuation of the uterus are responsible for three-fifths of the cases of death. The extremely small list of death by hemorrhage (1.2 per cent) does not justify either the prophylactic practice of Cesarean premature delivery or the systematic practice of the evacuation of the uterus by hysterotomy during labor. The total fetal mortality oscillates with the obstetric methods between 44 and 60 per cent. It is generally due to debility caused by premature prematuration. The percentage of mortality decreases with the degree of maturity of the children.

The conclusion which appears to follow from all these facts is that the systematic practice of the Cesarean section, in the cases of serious hemorrhage by vicious insertion of the placenta, is justified. We are sufficiently armed by our obstetric methods to combat hemorrhage with success if we intervene as soon as the surgical indication to intervene is clearly established.

Every time that the state of the woman would permit us to count upon the success in practicing the prophylactic Cesarian section we have the certitude of obtaining the same success by our obstetric methods, applied under the same operative conditions from the point of view of asepsis and technical competence. We thus respect entirely the function of reproduction for the future, and if we too often pay for this preservation by the death of the child, our regrets are diminished by the fact that the child is in most cases weak as the result of premature birth.

We have this certitude each time that our obstetric action can be carried out without violence in a pelvic-genital opening which is normal from the point of view of permeability, dilatability and microbian flora. But if this condition remains unfulfilled in the slightest degree, this is a reason for directing the treatment into the surgical path.

1. *Complex Dystocia:* Cases in which, in addition to hemorrhage caused by vicious insertion, there is some obstacle to easy delivery by the natural way (fibromes, narrow basins, cervical cicatrices).

2. *Insufficient Dilatability of the Neck of the Uterus:* Cases in which it is necessary to proceed quickly, and in which the neck is not dilatable or is dilatable only with difficulty; cases in which the

absence of uterine contraction and the persistence of hemorrhage after the application of a ball or the podalic turning render necessary the immediate evacuation of the uterus.

These are quite exceptional cases in women who have bled or are bleeding from the fact of the vicious insertion of the placenta.

3. *Infection of the Genital Passages:* For women suffering from scarcity of blood and infection, brought to the maternity hospitals at the commencement of or during labor, after having been subjected outside to examinations and treatments, there is something better than hurrying on delivery or wasting hours waiting for the possibility of bringing about the delivery without violence. The Porro operation might diminish the risk of mortality.

The transperitoneal Cesarean section on the ancient system and partial or total hysterectomy are the methods which, according to circumstances, appear best to fulfil the exceptional indications of the surgical treatment of hemorrhages caused by insertion of the placenta on the inferior segment.

Hemorrhage Caused by Detachment of the Placenta Normally Inserted: (Retroplacentary hemorrhages and uteroplacentary apoplexies). The grave cases of retroplacentary hemorrhage still give a mortality of 40 per cent.

The improvement of the results will be obtained to a certain extent by a surgical orientation of therapeutics.

The therapeutic problem is complex, for, in addition to the factors of hemorrhage and infection, the prognosis depends on the pathological condition during the course of which the hemorrhagic accident happened, and on the numerous organic alterations that it has produced.

In exceptional cases, the detachment of the placenta takes place absolutely without warning in a woman presenting every appearance of health. In the cases of cataclysmic hemorrhage, a rapid surgical intervention of certain hæmostatic effect, such a hysterectomy is alone capable of arresting the hemorrhage and saving the woman. These cases are exceptional. In most cases the premature detachment of the placenta is observed in women presenting the accompanying symptoms of the condition of gravidic toxemia. This condition partially dominates the prognosis.

The state of hemorrhagic shock is not always in proportion to the quantity of blood lost.

Retroplacentary hemorrhage is not always anatomically charac-

terized by a simple retroplacentary hematone. The detachment of the placenta may be the result of a real uteroplacentary apoplexy. The wall of the uterus is then the seat of a colossal sanguinary infiltration. The wide ligaments may be the siege of sanguinary infiltrations going up as high as the renal regions. These great lesions must be considered as an aggravating factor of the general condition, and as a possible factor of secondary hemorrhage. In any case this state of the uterine wall, observed during the course of a Cesarean operation, would necessitate hysterectomy.

The neck of the uterus fairly often presents a special ligneous consistency. The choice of therapeutic methods will depend on the condition of the neck of the uterus at the moment when the indication to evacuate the uterus presents itself. But, however little the neck of the uterus lacks suppleness and dilatability, the obstetrical dilatation must be given up and recourse must be had immediately to surgical processes of rapid evacuation of the uterus. The abdominal way, which alone permits the existence of lesions of uteroplacentary and parauterine apoplexy to be observed, appears to be preferable to the vaginal way. In exceptional cases, after the evacuation of the uterus, an incoercible hemorrhage would render necessary hæmostasis by hysterectomy.

Summary.—In order to summarize in a few words the present state of the doctrines and practice of French accoucheurs with regard to the surgical treatment of hemorrhage caused by vicious insertion of the placenta, and of retroplacentary hemorrhage, the following remarks may be made:

In general, French accoucheurs have preserved with regard to obstetrical hemorrhages, the pre-eminence given to the non-surgical methods of hæmostasis. They have endevored to define the real indications of the surgical methods, which must be reserved for the relatively rare cases in which obstetrical methods are powerless or dangerous.

The surgical solutions are certainly often more rapidly and easily realized. But the price paid for their success, which moreover cannot be constant, is the definitive mutilation or the decrease of the obstetrical value of the woman operated.

Except for the rare cases in which surgical action must be preferred, it must be recognized that the improvement of the therapeutic results will be the consequence not of an unjustified extension of the indications of surgical methods, but of the perfecting

of the obstetrical education of physicans and accoucheurs.

Pregnancy.—Ph. Jung (Gottingen): The best way of treating abortion is to dilate the cervix and empty the uterus by finger. In special cases hysterotomia anterior is indicated.

Myomata causing hemorrhages during pregnancy are always situated in the cervix and must be removed. In case of abortion, hysterectomy is the best treatment on account of the danger of infection.

The treatment of carcinoma uteri is radical operation without delay. In case of inoperability, colpohysterotomia or Cesarean section at the full term; in the meantime the usual palliative treatment.

Perforating lesions of the uterine wall during pregnancy are treated by suture, in severe cases by hysterectomy.

Labor.—In case of premature detachment of a normally situated placenta, rapid delivery has to take place. If the cervix is not yet sufficiently dilated for forceps or version, colpohysterotomia anterior is indicated. Contracted pelvis requires Cesarean section.

The best treatment for partial placenta previa, superior to the version, is the metreurysis. In cases of central placenta previa, colpohysterotomia anterior is indicated, provided the measures of the pelvis are normal, otherwise Cesarean section.

Lacerations of the cervix causing hemorrhage ought to be sutured carefully. All other methods of treatment are to be considered only as makeshifts.

When rupture of the uterus occurs, operation is strictly indicated. The best way is to perform laparotomy and either suture the wound or remove the uterus. Only incomplete ruptures might be sutured with good result by the vaginal way. Tamponing ought to be resorted to as seldom as possible.

In cases of uterine inertia, exciting of uterine contractions, and, if not sufficient, tamponing the uterine cavity, will generally check the bleeding. When these methods fail hysterectomy by vaginal or abdominal way is indicated.

In cases of inversion the object sought is the reposition of the fundus uteri. In case of failure hysterectomy offers the best result.

Puerperium.—In cases of hemorrhages caused by retained portions of secundines first administer ergot, if this fails, remove them by finger. Fever does not obviate that. Subinvolution without retention requires only the administration of ergot.

Myomata causing hemorrhages during the puerperal state have to be removed either by vaginal or abdominal operation, according to their size.

Carcinomata must be treated by radical abdominal hysterectomy. In cases of inoperability the palliative treatment (excochleation and cauterization) takes place.

Hemorrhages in the later stage of puerperium, but still within the first months post-partum, justify the suspicion of chorion-epithelioma. A sure diagnosis can be made only by microscopical examination of fragments removed by curetting. The chorion-epithelioma requires immediate abdominal hysterectomy.

Compression of the Aorta.—In cases of acute hemorrhages caused by lacerations of the uterus, placenta prævia, uterine inertia, when the usual methods fail, temporary compression of the aorta may save some lives.

Compression by finger is generally not sufficient.

Momburg's constriction is at present the best method of compressing the aorta—far superior to the other complicated apparatuses.—*Surgery, Gynec. and Obst.* C. J. M.

Department of Nervous and Mental Diseases.

In Charge of Dr. R. M. Van Wart, New Orleans.

A Contribution to Serum and Vaccin Therapy in the Treatment of Intracranial Complications of Middle Ear Suppuration.—(A. Logan Turner, *Journ. Laryngol. and Otol.*, Vol. XXVII, Nos. 3-7, March-July, 1912.)—*Serum Therapy.*—A short account is given of five cases treated with antistreptococcic serum subsequent to operation; three recovered and two died. Four were cases of chronic middle ear suppuration, one of them associated with diseases of the labyrinth, while the fifth was a case of acute otitis media with labyrinthine symptoms. The intracranial complications were as follows: Acute leptomeningitis in three, sigmoid sinus thrombosis in one, and serous meningitis in one. Two of the cases of acute leptomeningitis and the case of serous meningitis recovered; one case of leptomeningitis and the case of sinus thrombosis were fatal. In three of the cases of meningitis and in the case of sinus thrombosis the streptococcus pyogenes was the pre-

dominant organism, while the remaining case of meningitis was probably due to the bacillus aërogenes capsulatus.

In all, a polyvalent antistreptococcic serum was used. The three cases which recovered came under treatment within a week of the onset of acute symptoms; the two which died, in the third week. In the four cases of meningitis the antistreptococcic serum was injected subcutaneously and into the spinal canal; in the case of sinus thrombosis, subcutaneously only. After a short discussion of the cases the author concludes that one of them only furnishes any positive evidence of the efficiency of the serum therapy as an adjunct to operation.

Vaccin Therapy.—A short account is given of four cases in which the treatment was assisted by the administration of autogenous vaccins. Two were cases of sigmoid sinus thrombosis, and in two there were sinus thrombosis associated with meningitis. In all there was chronic middle-ear suppuration. Three recovered and one died. Operations were performed in every instance, and autogenous vaccins were employed. The cases came under treatment from six to fourteen days after the onset of acute symptoms. The vaccins were given daily, or on alternate days, until improvement took place, as evidenced by fall of temperature. On the temperature rising again they were recommenced. In no case were more than nine consecutive injections given. The author discusses the cases, and thinks that in one at least the vaccins were of value.

Secondary Syphilitic Meningitis.—(A. W. M. Ellis, *Journ. Med. Assoc.*, 1912, LIX, p. 1263.)—A record of six cases in which signs of meningeal involvement appeared from one to four months after the chancre. In four the symptoms were never obtrusive, and only lumbar puncture revealed the nature of the process. Ellis regards the so-called nerve recurrences after salvarsan as examples of such a meningitis. He denies the contention that salvarsan predisposes to diseases of the nerve system. In four of his cases nervous symptoms had been present before salvarsan had been given.

Pneumobacillus Cerebro-Spinal Meningitis.—(A. Siredey, H. Lemaire, and Mlle. De Jong, *Bull. et mem. Soc. Méd. Hôp. de Paris,* 1912, XXXIV, p. 258.)—Meningitis due to Friedländer's organism is very rare (*v. Review,* 1911, IX, p. 84). The writers record a fatal case in an alcoholic man, aged 26. The symptoms

of meningitis had been preceded by a sore throat, from which the infection probably originated. Pneumobacilli were found in the purulent cerebro-spinal fluid during life. The skin and conjunctivæ showed a markedly icteric tint, and *postmortem* the liver showed extreme fatty degeneration, which accounted for the diminished resistance to infection. A mouse inoculated with the cerebro-spinal fluid died in twenty-four hours, and the pneumobacilli were found in its heart's blood, liver and spleen.

Mitral Stenosis: Peripheral Emboli Causing Partial Monoplegia, with Symptoms Simulating Cerebral Embolism.—(G. G. Alderson, *Brit. Med. Journ.*, October 26, 1912, p. 1096.)—A short record of a case of a woman, aged 42, who developed mitral disease after an attack of rheumatic fever six years previously. Eighteen days before admission to the hospital, while stooping suddenly, she felt sick and giddy, and the left forearm and hand fell powerless to the side. A second embolus, affecting the lower limb, occurred three days later. She again felt sick and giddy, and simultaneously "lost power" in the left leg and foot. She was sent to the hospital as a case of cerebral embolism, when it was found that the left radial pulse was absent, and that pulsation was absent from some of the main arteries of the foot. Four days after admission she died suddenly.

At the necropsy no cerebral lesions could be found to account for the loss of power in the limbs. The upper part of the left brachial artery was blocked by a reddish-grey clot of recent formation, and another thrombus was found filling the lower half of the left femoral and the whole of the popliteal arteries below. A large ante-mortem clot, 2½ inches long, was found in the right auricle.

Chronic Myelitis and Intention Tremor.—(C. Angela, *Riv. di Patol. nerve. e. ment.*, Vol. 17, Fasc. 8, 1912, p. 466.)—The author describes a case of spasticity of all four limbs with well-marked intention tremor that was diagnosed during life as disseminated sclerosis. *Postmortem* a condition of multiple chronic myelitis was found. The lesions were chiefly confined to the cord, but a small patch of myelitis involving the hypoglossal nucleus was also found. Neglecting this latter lesion, the author assumes that he has a case demonstrating the occurrence of intention tremor in purely spinal disease.

Louisiana State Medical Society Notes.

In Charge of Dr. L. R. DeBuys, Secretary, New Orleans.

Preliminary Program for 1913 Meeting.

To Be Held in Baton Rouge, April 22, 23 and 24, 1913.

Scientific Program.

(This is merely a preliminary outline of the program. A complete program will be mailed each member of the Society two weeks before the meeting.)

The following papers will be presented at the meeting:

"Surgery of Ophthalmic Goitre"—Dr. J. M. Batchelor, New Orleans.

"Medical Aspects of Ophthalmic Goitre"—Dr. Hamilton P. Jones, New Orleans.

"Pathology of Ophthalmic Goitre"—Dr. William H. Harris, New Orleans.

"Lymph or Elephantiac Edema; Its Therapeutics, with Special Reference to the Kondoleon Operation"—Drs. Rudolph Matas and Hermann B. Gessner, New Orleans.

"Indigestion from a Surgical Standpoint"—Dr. I. J. Newton, Monroe.

"Emergency Surgery of the Skull, with Report of Cases"—Dr. Robert C. Kemp, Baton Rouge.

"Pituitrism; the Surgical Importance of Its Early Recognition by the General Practitioner"—Dr. L. J. Genella, New Orleans.

"Abdominal Pain, with Special Reference to the Appendix"—Dr. W. T. Richards, New Orleans.

"The Surgical Treatment of Potts' Disease"—Dr. P. A. McIlhenny, New Orleans.

"Experimental Work in Blood Vascular Surgery, with Report of Cases"—Drs. Christian and E. L. Sanderson, Shreveport.

"Vicious Circle Following Short No-Loop Operation Relieved by Secondary Jejuno-Jejunestomy"—Dr. John Smyth, New Orleans.

"Anomalies of the Sacro-Lumbar Articulation"—Dr. E. S. Hatch, New Orleans.

"Eugenics in its Relation to the Welfare of the Public"—Dr. T. B. Futcher, Baltimore.

"Diagnosis of Diphtheria"—Dr. Leon J. Menville, Houma.

"Bacteriology and Control of Diphtheria"—Dr. C. W. Duval, New Orleans.

"Treatment of Diphtheria"—Dr. George S. Bel, New Orleans.

"Acidosis"—Dr. Allan C. Eustis, New Orleans.

"Medical Aspect of Appendicitis"—Dr. Frank T. Gouaux, Lockport.

"Modern Conceptions of Diabetes Mellitus"—Dr. Isaac Ivan Lemann, New Orleans.

"The X-Ray in the Recognition of Pulmonary Tuberculosis"—Dr. Adolph Henriques, New Orleans.

"The Treatment of Myoma of the Uterus and the Hemorrhage of the Menopause With the X-Ray"—Dr. E. C. Samuel, New Orleans.

"Acne; Its Prognosis and Treatment"—Dr. J. Numa Roussel, New Orleans.

"Recent Advances in Tropical Medicine of Practical Interest to the General Practitioner in the South"—Dr. C. C. Bass, New Orleans.

"Stereopticon Demonstration of Cultures of Malarial Parasites"—Dr. Foster W. Johns, New Orlaens.

"Influences Affecting the Reproduction of Malarial Plasmodia in Man"—Dr. C. C. Bass, New Orleans.

"The Limitations of Medical Gynecology"—Dr. Thomas Ragan, Shreveport.

"Eclampsia"—Drs. O. W. Cosby and R. H. Blackman, Monroe.

"A Discussion of Pelvic Infection, with Special Reference to the Needs of the General Practitioner"—Dr. S. M. D. Clark, New Orleans.

"The Operative Treatment of Inaccessible Vesico-Vaginal Fistulæ"—Dr. F. W. Parham, New Orleans.

"A New Suggestion for the Sacro-Uterine Ligaments in Cases of Extensive Prolapsus Uteri"—Dr. C. Jeff Miller, New Orleans.

"The Frequency and Causes of Stillbirth"—Drs. W. D. Phillips and M. Thomas Lanaux, New Orleans.

"What the General Practitioner Should Know About Gonorrheal Iritis"—Dr. R. F. Harrell, Alexandria.

"Nystagmus in Relation to Diseases of the Labyrinth"—Dr. Otto Joachim, New Orleans.

"Acute and Subacute Pharyngeal Tonsilitis (Adenoiditis)"—Dr. Homer Dupuy, New Orleans.

"Colds; Their Cause, Prevention and Cure"—Dr. William Scheppegrell, New Orleans.

"The Importance of Carefully Correcting Errors of Refraction"—Dr. D. Fred Waide, New Orleans.

"Some Remote Manifestations of Chronic Sinus Suppuration"—Dr. R. C. Lynch, New Orleans.

"The Surgical Tonsil"—Dr. J. L. Scales, Shreveport.

"Pathology, the Basis of Scientific Medicine"—Dr. A. A. Herold, Shreveport.

"Notes on Recent Interesting Work Seen in the Laboratories Here and Abroad"—Dr. William H. Harris, New Orleans.

"Hydrophobia and the Pasteur Treatment"—Drs. J. C. Willis and W. P. Butler, Shreveport.

"The Diagnosis and Control of Diphtheria"—Dr. William H. Seemann, New Orleans.

"Diagnosis of Essential Anemias"—Dr. Chaillé Jamison, New Orleans.

"Complement Deviation Test for Prognosis of Gonorrhea"—Dr. J. A. Lanford, New Orleans.

"The New Health Commandment"—Dr. Oscar Dowling, Shreveport.

"The Necessity of Microscopical Examination in the Prevention of Disease"—Dr. William H. Seemann, New Orleans.

"What the Legislature Might Do for Sanitation"—Dr. S. D. Porter, Baton Rouge.

"Malaria in Louisiana"—Dr. J. H. White, New Orleans.

"The Fly and Its Extermniation"—Dr. C. C. Chandler, Shreveport.

"Treatment of Diphtheria and Diphtheria Carriers"—Dr. Solon G. Wilson, New Orleans.

"Acid Intoxication in Children"—Dr. L. R. DeBuys, New Orleans.

SYMPOSIUM ON CEREBRO-SPINAL MENINGITIS.

"Pediatric Standpoint"—Dr. W. W. Butterworth, New Orleans.

"Pathological and Bacteriological Standpoint"—Dr. C. W. Duval, New Orleans.

"From a Neurological Standpoint"—Dr. R. M. Van Wart, New Orleans.

ENTERTAINMENT.

(Other entertainments are planned, details of which will appear in the program to be mailed to members.)

Tuesday, April 22, immediately after the morning session, the members will visit the plant of the Standard Oil Company. A special train will be waiting to accommodate the visitors.

Wednesday, April 25, immediately after the morning session, smoker and luncheon at the Elks' Home.

Wednesday afternoon, from 4 to 6. Reception at residence of Dr. Chas. McVea. This function will be of special interest to the visiting ladies.

Thursday, April 24, at noon. Automobile ride through city. Visits will be made to the different State Institutions, the Penitentiary, the Louisiana State University, the Institute for he Blind and the School for the Deaf and Dumb; luncheon will be served at the last named place.

Thursday, April 24, 8 p. m. Banquet at Istrouma Hotel.

The Elks will extend the courtesies of their home to the visiting members during their stay in Baton Rouge and arrangements have been made with the Dreamland and Columbia theatres by which all members wearing badges will be admitted free.

HOTELS.—Special rates have been secured at all hotels.

TRANSPORTATION.—A special rate of one and a third fare, on the certificate plan, has been obtained from the railroads.

GUESTS.—The society will have as its guests Drs. Richard W. Cabot, of Boston, and Thomas R. Futcher, of Baltimore.

MEETINGS.—All meetings will be held at the State House.

DUES.—The attention of members is called to the fact that dues are now $4. Please remit at once. If your parish is organized, pay your local secretary; if not organized, remit direct to Dr. Maurice J. Gelpi, treasurer, 141 Elk Place, New Orleans.

HOUSE OF DELEGATES.—The first meeting of the House of Delegates will be held on Monday, April 21, in the afternoon. Parish societies who have not already complied with the formality are requested to send in the names of their delegates at once to the secretary of the State Society, Dr. L. R. DeBuys, 141 Elk Place, New Orleans.

INVOCATION AND ADDRESSES OF WELCOME.—The invocation will be given by Rev. J. Gilmer Buskie. Address of welcome on behalf of the city of Baton Rouge will be delivered by Mayor Jules Roux and the address of welcome on behalf of the East Baton Rouge Parish Medical Society by Dr. R. C. Kemp, president of the society.

Parish Society Meetings.

LaSalle Parish Medical Society.—The LaSalle Parish Medical Society met in called session at Trout, Louisiana, March 9, 1913, with the following named officers and members present: Drs. W. F. Wade, president; F. Hamilton, secretary; J. A. Colman, treasurer. Meeting called to order by the president.

Dr. A. L. Peters, on application, was elected a member of the society.

The election of officers for the ensuing year resulted in the selection of Dr. B. F. Ferguson, of Standard, La., president; Dr. F. Hamilton, of Jena, La., vice-president; Dr. A. L. Peters, of Trout, La., secretary and treasurer. A meeting of the society was voted to be held at Georgetown, La., date to be set by the newly elected president.

A resolution endorsing the hookworm campaign of Dr. Baucum throughout the parish was unanimously passed as follows:

Be it Resolved, By the LaSalle Parish Medical Society, in a called session assembled, That we do heartily endorse the campaign made by Dr. Baucum throughout our parish in his effort to relieve the sufferers with hookworm and we hereby extend to him our hearty professional appreciations of the most painstaking and scientific manner in which he conducted the work.

Be it Resolved, That a copy of the proceedings of this meeting be sent to the LaSalle *Ledger* and Jena *Times* and to the New Orleans Medical and Surgical Journal for publication.—A. L. Peters, Secretary.

The Avoyelles Parish Medical Society met at Marksville, January 9, 1913, with the following members present: Drs. W. A. Quirk, M. E. Saucier, P. E. Brahic, W. F. Couvillion, T. Y. Couvillion, R. G. Ducoté, Emil Regard, T. A. Foy, Leon Chatelain, Philip Jeansomme and L. C. Tarleton. Dr. M. E. Saucier was elected president, Dr. Philip Jeansomme, vice-president, and Dr. P. E. Brahic was re-elected secretary and treasurer. The next meeting will take place at Hessmer, in April.

The following resolution was carried unanimously:

It is the sense of this society that members of the medical profession who are not members of the medical society, either Parish, State or National, should not expect and should not receive the courtesies of the profession.

Resolved, further, that in the event that a non-member should require the services of a member, it shall not be obligatory on the latter to give his service free.

Resolved, further, that each physician in this parish shall be served with a copy of this resolution and that these proceedings shall be published in the New Orleans Medical and Surgical Journal.

Lincoln Parish Society.—The following members of the Lincoln Parish Medical Society met in Ruston, March 4, 1913: Drs. A. J. Thomas, Simsboro; J. S. McBride, Ansley; L. P. Smith, Dubach; S. A. Poole, Simsboro; W. W. Welch, Knowles; R. Roberts, W. S. Kendall, W. S. Harrell, S. L. White and W. S. Rutledge, Ruston, and Dr. W. H. Cook, Choudrant.

This being the annual meeting, the society proceeded to election of officers for the ensuing year, which resulted as follows:

Dr. R. Roberts, of Ruston, president; Dr. A. J. Thomas, of Simsboro, vice-president; Dr. W. S. Rutledge, of Ruston, secretary; Drs. J. S. McBride, W. H. Cook and H. N. Harper, Board of Censors.

Dr. W. S. Harrell was elected delegate to the State Medical Society.

Dr. A. E. Fisher, of Choudrant, and Dr. W. W. Welch, of Knowles, were elected to membership.

The meeting was a very pleasant and interesting one. The next meeting will be held with Dr. Cook at Choudrant, May 6, 1913.

After the transaction of business the physicians repaired to the Beckham Restaurant, where they were entertained with a luncheon by the Ruston members.

The Lincoln Parish Society is now well organized and a growing interest is evidenced in the meetings.

Medical News Items.

Tulane Summer Normal.—The Tulane Summer Normal will open on June 16 for a session of six weeks. The entrance requirements to the normal department will be that of a first grade teacher's certificate, or the units necessary to enter Tulane University or the Louisiana State University. The certificates of credit will be issued after satisfactory completion of a minimum of twelve

hours a week, two laboratory hours being equivalent to one hour of class work. A maximum of eighteen work hours per week will be allowed students. All teachers will be required to take at least one professional study in their course. As in the past, the authorities will get special railroad rates for those attending the institution.

The Simpson County Medical Society met at Mendenhall, Miss., on February 22 and elected the following officers: Dr. J. N. Chandler, of Braxton, president; Dr. E. A. Kennedy, of Magee, vice-president; Dr. A. C. Norman, of Braxton, treasurer; Drs. W. F. Stroud, E. A. Ross and R. E. Giles, censors; Dr. T. T. Robinson, of Mendenhall, delegate to the State Medical Association.

United States Public Health Service.—A board of commissioned medical officers will be convened to meet at the Bureau, 3 B street, S. E., Washington, D. C., on Monday, April 7, 1913, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon. Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to their professional and moral character. Service as interns in hospital for the insane, or experience in the detection of mental diseases, will be considered and credit given in the examination. Candidates must have one year's hospital experience or two years' professional work. For further information, or for invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

New Orleans Academy of Science.—On March 11 the New Orleans Academy of Science celebrated its sixtieth anniversary at the Progressive Union Hall. Dr. Isadore Dyer, dean of the medical department of Tulane University, was elected president, to succeed Dr. Wm. Benjamin Smith. Other officers were elected as follows: Prof. W. B. Gregory, professor of experimental engineering at Tulane, first vice-president; Prof. W. R. Dodson, director of the experiment station, Louisiana State University, second vice-president; Prof. R. S. Cocks, professor of botany at Tulane, secretary; Dr. A. L. Metz, professor of chemistry at Tulane, treasurer.

Dr. Wm. J. Robinson Honored.—On Friday evening, March 7, at the Hotel St. Denis, New York City, a complimentary dinner was tendered Dr. Wm. J. Robinson, in recognition of his public

activity as writer and lecturer and in celebration of the tenth anniversary of the foundation of the *Critic and Guide*. Dr. A. Jacobi acted as toastmaster.

Prizes at the International Medical Congress.—Three prizes will be awarded on the occasion of the Seventeenth International Congress in London, the prize of the city of Moscow, commemorating the Twelfth Congress, of the value of 5,000 francs, for the best work in medicine, or hygiene, or eminent services to the community. The prize of the Paris Congress, of the value of 4,000 francs, to a single person for a discovery or original work within ten years, bearing on medicine, surgery, obstetrics, or anatomy and biology. The third prize, instituted in commemoration of the Sixteenth Congress by Hungary, of the value of 3,000 crowns, in recompense of a work in the domain of medical science having appeared within the interval of two congresses. The office of the permanent commission of International Medical Congresses is situated at The Hague, and nominations for these prizes should be made to the same at No. 10 Hugo de Grootstratt. Nominations, whether personal or otherwise, should be accompanied by a volume of the work believed to be deserving of a prize, and all nominations must be made previous to June 1.

Ask Vital Statistics.—In its campaign for the elimination of preventable diseases, which authorities are quoted as saying would mean an economic gain of $1,500,000 a year to this country, the Association of Life Insurance Presidents, at its meeting in New York City, made public a brief appeal in which request is made for the proper registration of vital statistics. This brief will be presented to the Legislatures of the States which are deficient in recording births and deaths. The brief shows that 630,000 of the 1,500,000 deaths each year in this country are caused by preventable diseases, and that the proper application of scientific knowledge would make prevention possible if every State aided in keeping records of disease, births and deaths.

Orificial Surgeons to Meet.—The spring clinic of the American Association of Orificial Surgeons will be held in the Surgical Ampitheatre of Hering Medical College, Chicago, April 23, 24.

The Governors of the New York Skin and Cancer Hospital announces a course of clinical lectures in the out-patient hall of

the hospital Wednesday afternoons, at 4:15, on Surgical Diseases of the Skin, April 2, 9, 16, 23, 30 and May 7, by Dr. Bulkley, and on Surgical Treatment of Malignant Diseases, May 14, by Dr. Bainbridge. The lectures will be free to the medical profession on the presentation of their professional cards.

The Society of Clinical Surgery held its twentieth meeting at New Orleans, March 21 and 22, 1913. Clinics were given by local men at the Charity Hospital and the Touro Infirmary and demonstrations, laboratory and lectures were given at the various buildings of the Medical Department of Tulane University.

Among the local men taking part in the clinics were Drs. Matas, Parham, Danna, Fenner, Wellman, Elliott (J. B., Jr.), Dyer, Macs, Duval, Couret, Mann, Clark, Souchon (Sr.), Gessner, Allen, Miller, Kohlmann, Martin (E. D.), Lyons, Hume, Michinard and others. The Society was well attended by visitors, of whom we may note: Dr. W. Bartlett, St. Louis; Dr. A. D. Bevan, Chicago; Dr. John T. Bottomley, Boston; Dr. G. W. Crile, Cleveland, O.; Dr. Ellsworth Eliot, Jr., New York; Dr. J. H. Gibbon, Philadelphia; Dr. M. L. Harris, Chicago; Dr. J. P. Hutchinson, Philadelphia; Dr. Robert G. LeConte, Philadelphia; Dr. Dean D. Lewis, Chicago; Dr. F. B. Lund, Boston; Dr. L. L. McArthur, Chicago; Dr. Charles H. Mayo, Rochester, Minn.; Dr. J. G. Mumford, Clifton Springs, N. Y.; Dr. F. T. Murphy, St. Louis; Dr. Chas. H. Peck, New York; Dr. R. H. Harte, Philadelphia; Dr. Boswell Park, Buffalo, and Dr. George E. de Schweinitz, Philadelphia. A number of the members sailed for Panama on the 22nd, on the United Fruit Company's steamer.

New Orleans College of Pharmacy.—Further noting the affiliation of this school with the Loyola University, Dean Asher states that no monetary consideration has entered; that the name of the college will not be changed, and that the faculty, trustees and business will continue as heretofore. The present enrollment of 99 is the largest in the history of the college.

More Money for Tuberculosis Associations.—Associations fighting the spread of tuberculosis will be gratified to know that 29 per cent more money was spent in 1912 in their war on the disease than in the previous year. About $19,000,000 was spent during the year. One of the most gratifying items is that public

money has swelled the total. More than 65 per cent of the $19,000,000 was appropriated by the local, State and Federal governments. This would seem that the burden of caring for tubercular patients and in preventing the spread of the disease is quickly devolving upon the public, and that private agencies will soon be relieved. Of the total, New York State spent $5,162,316 last year. Pennsylvania is next with $2,219,827.

Raise Medical Standard.—The Association of American Medical Colleges, which met in Chicago the latter part of February, adopted a resolution to the effect, that hereafter students in schools belonging to the Association of American Medical Colleges will be forced to take a five-year instead of a four-year course, as at present. There are now thirty colleges which enforce a two years' collegiate course preparatory to admittance to a medical college, and five other colleges have adopted the same rule, effective January 1, 1914. A resolution was also adopted raising the entrance standard for all colleges in the Association, after January 1, 1914, to include a year of college work in physics, chemistry and a modern language. Special standards for clinical work were also adopted at the meeting.

Personals.—Dr. Herbert L. Wight, president of the Oklahoma State Health Association, was in New Orleans during March.

Removals.—Dr. A. J. Sands, from Aloa, Oklahoma, to 423 Twenty-third Street, Denver, Colo.

D. Jefferson Woolsey, from Nixon, Texas, to Karnes City, Texas.

Dr. J. E. Crawford, from Shelbyville, Texas, to Ludington, La.

Dr. L. Canepa, from 1129 Bourbon Street, to 806 Esplanade Avenue, New Orleans.

Dr. Alexander Ficklen, from 1126 Maison Blanche, to 813 Barracks Street, New Orleans.

Dr. J. V. Adam, from Winnsboro, La., to Fort Necessity, La.

Dr. C. L. Vines, from Lison, Ark., to Farmersville, La.

Dr. S. A. Poole, from Ruston, La., to Simmsboro, La.

Dr. Mayer Newhauser, from 218 South Claiborne to 3034 Canal Street, New Orleans.

Married.—On February 26, 1913, Dr. Mayer Newhauser, to Miss Jeanette Marcuse, both of this city.

DIED.—On February 17, 1913, at Alexandria, La., Dr. W. W. Ashton.

On February 25, 1913, at New Rochelle, New York, Dr. Benjamin Eli Smith, managing editor of the Century Dictionary and editor of other literary works, aged 56 years.

On February 24, 1913, Dr. Perry Wright Falls, of this city, aged 51 years.

On March 8, 1913, Dr. Charles A. Faget, one of the city's most prominent physicians and a pioneer in fever work. His death is deeply regretted by his many friends.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Principles and Practice of Obstetrics, by JOSEPH B. DE LEE, A. M., M. D. W. B. Saunders Company, Philadelphia and London, 1913.

The author of this book, who has been a teacher of obstetrics for more than twenty years, has, from his long experience with students and his great knowledge of the subject, well fitted himself for the writing of a text-book such as here presented. That he has successfully acquitted himself of the self-imposed task is evident. The subject-matter is divided into four parts—the physiology and conduct of pregnancy, labor and the puerperium being in the junior years, and the pathology of pregnancy, labor and the puerperium with operative obstetrics, in the senior year. There is a comforting absence of fatiguing polemic discussion. Particular attention is given to diagnosis, as well as to the relations of obstetric conditions to accidents and to general medicine and surgery. Surgical gynecology has been eliminated, an appendix too often found in recent works on obstetrics. Gynecological operative technic is too changeable to be embodied in a text-book of this subject. There is a wealth of clear detail and of beautiful illustrations to tell the student what to do in a given case. Many illustrations are somewhat artistic, and appear to be new and original; they are a lecture in themselves. Every chapter is a masterpiece.

The pathology of the puerperium is treated of in a comprehensive manner; it is interestingly and instructively presented, the text of the surgical procedures for the treatment of infection being assisted by several well-executed illustrations. Such is also true of the operations of symphysiotomy, hebostectomy, and vaginal and abdominal Cesarean sections.

The book is timely. It shows great reading, great thought, great experience. It is strongly recommended to every student and practitioner of medicine. MICHINARD.

Skin Grafting, by LEONARD FREEMAN, B. S., M. A., M. D. C. V. Mosby Company, St. Louis.

In this interesting monograph of over one hundred pages there are

presented numerous historical and modern methods of skin grafting. The technical details are freely given, and the few illustrations employed are quite appropriate. The author succeeds in his object of a clear exposition of the present status of skin-grafting and embodies many practical points which must serve the practitioner, for whom the little book is intended.

DYER.

Blakiston's Quiz Compends: Histology, by HENRY EIDMANN RADASCH, M. Sc., M. D. Third edition. P. Blakiston's Son & Co., Philadelphia.

This little book has been brought up to date, and must continue to serve its usefulness as a ready and rapid reference for the busy doctor.

Man's Redemption of Man: A Lay Sermon, by WILLIAM OSLER. Paul B. Hoeber, New York.

Another essay appealing to the general reader in behalf of the great work of the medical profession in preventive medicine. It is full of the characteristic philosophy of Osler. More such little books should be written to encourage the doctor in his work for and with humanity.

DYER.

Progressive Medicine. Volume XIV, No. 4. December, 1912. Edited by HOBART AMORY HARE, M. D., assisted by LEIGHTON P. APPLEMAN, M. D. Lea & Febiger, Philadelphia and New York.

Such names as Goodman, Bradford, Bonney, Bloodgood and Landis are found making up the list of contributors to this number, and the kidneys, digestive tract, genito-urinary apparatus are among the subjects discussed. Two extensive divisions are devoted to the surgery of the extremities and to therapeutics.

The contributions are altogether valuable, and must be read to be appreciated. The chapter on therapeutics gives a synoptical review of many new remedies and new applications of a number of old remedies.

DYER.

Diseases of Children. A Practical Treatise on Diagnosis and Treatment for the Use of Students and Practitioners of Medicine, by BENJAMIN KNOX RACHFORDE. D. Appleton & Co., New York and London.

So many works on children and their diseases are in current publication that a new one might seem superfluous, if it were not for the fact that the present book is presented from a new point of view, and, after all, current medicine is made up of points of view.

Beginning with the general consideration of the hygiene of the newborn and of infants and children, the author goes at the examination of the child first. Then general ideas of treatment are presented before any particular diseases are discussed. After such introduction, the new-born is considered from the standpoint of disease, in which the feeding is made a part. The intestinal tract is taken up in detail and exhaustively considered. Then follow nutritive diseases, infectious diseases, diseases of the respiratory system, and finally the diseases of special organs, in each of which a broad handling is in evidence.

We are forced to take issue, in the chapter on "Eczema and Other Skin Diseases," with the superogatory dictum that "the importance of reflex factors has been greatly exaggerated, and I have never been fully convinced that they assume a place among the causative factors of this disease." The clinical experience of over twenty years with the reflex eczema in boy babies, cured by reducing or circumcising adherent foreskins, *with no other treatment,* compels the reviewer to offer refutation of the author's statement. In the same way the author might deny eye-

strain as provocative of urticaria, though he does accept this as a reflex disease. A further attack might be made upon the "infectious" character of erythema multiforme, which is dismissed in one page and presented in a symptom complex which the dermatologist never sees!

With so many other excellent features, it would have been better to have omitted the chapter on skin diseases from the book, or else to have had a collaborator make the chapter worth while.

The illustrations are numerous and excellent, and the book is altogether worthy of a place among the more recent texts on children's ailments.

DYER.

Publications Received.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1913.

Diseases of the Heart and Aorta, by Arthur Douglas Hirschfelder, M. D., with an introductory note by Lewellys F. Barker, M. D., LL. D. Second edition.

WILLIAM WOOD & CO., New York, 1913.

The Practice of Urology, by Charles H. Chetwood, M. D., LL.D.

P. BLAKISTON'S SON & CO., Philadelphia, 1913.

Prisms: Their Use and Equivalents, by James Thorington, A. M., M. D.

LEA & FEBIGER, New York and Philadelphia, 1913.

Organic and Functional Nervous Diseases, by M. Allen Starr, M. D., Ph. D., LL. D., Sc. D.

WILLIAM LEONARD, Boston, 1913.

Men, Manners and Medicine, by Medicus Peregrinus.

LEMKE & BUECHNER, New York, 1913.

Cardiovascular Diseases, by Thomas E. Satterthwaite, M. D., LL.D., Sc. D.

JOHN WILEY & SONS, New York, 1913.

Chloride of Lime in Sanitation, by Albert H. Hooker.

MISCELLANEOUS.

Proceedings of the Canal Zone Medical Association. (Isthmian Canal Commission, September, 1912.)

Public Health Reports. Volume XXXIII, Nos. 8, 9, 10 and 11. (Washington Government Printing Office, 1913.)

Reports of the Department of Sanitation of the Isthmian Canal Commission, for the Months of December, 1912, and January, 1913.

Quarterly Bulletin of the Louisiana State Board: Drug Inspection and Department Reports.

Reprints.

Some Notes on Recent Typhoid Fever Outbreaks in Korea, Hawaii, by E. S. Goodhue, A. M., M. D.

Muscle Training in the Treatment of Infantile Paralysis, by Wilhelmine G. Wright.

Medical Education: An Unsolved Problem, by Isadore Dyer, Ph. B., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
For February, 1913.

Cause.	White	Colored	Total
Typhoid Fever	2	------	2
Intermittent Fever (Malarial Cachexia)	1	------	1
Smallpox	1	------	1
Measles	1	1	2
Scarlet Fever	------	------	------
Whooping Cough	------	------	------
Diphtheria and Croup	8	1	9
Influenza	7	6	13
Cholera Nostras	------	------	------
Pyemia and Septicemia	2	1	3
Tuberculosis	57	45	102
Cancer	21	7	28
Rheumatism and Gout	1	------	1
Diabetes	2	-----	2
Alcoholism	------	------	------
Encephalitis and Meningitis	3	5	8
Locomotor Ataxia	1	------	1
Congestion, Hemorrhage and Softening of Brain	26	5	31
Paralysis	5	1	6
Convulsions of Infancy	------	------	------
Other Diseases of Infancy	11	1	12
Tetanus	------	2	2
Other Nervous Diseases	5	1	6
Heart Diseases	61	28	89
Bronchitis	9	6	15
Pneumonia and Broncho Pneumonia	36	44	80
Other Respiratory Diseases	2	1	3
Ulcer of Stomach	1	------	1
Other Diseases of the Stomach	3	3	6
Diarrhea, Dysentery and Enteritis	12	19	31
Hernia, Intestinal Obstruction	3	------	3
Cirrhosis of Liver	9	8	17
Other Diseases of the Liver	1	2	3
Simple Peritonitis	------	------	------
Appendicitis	2	------	2
Bright's Disease	42	28	70
Other Genito-Urinary Diseases	12	9	21
Puerperal Diseases	6	4	10
Senile Debility	7	2	9
Suicide	2	1	3
Injuries	13	12	25
All Other Causes	19	24	43
Toval	394	267	661

Still-born Children—White, 23; colored, 13; Total, 36.

Population of City (estimated,—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 17.38; colored, 31.72; Total, 21.26.

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

Mean atmospheric pressure 30.09
Mean temperature 54.6
Total precipitation ..... 2.19 inches

New Orleans Medical and Surgical Journal.

VOL. LXV. MAY, 1913. No. 11

Original Articles.

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

The Rational Care of the State's Insane.*

By JOHN N. THOMAS, M. D.,
Superintendent of the Louisiana Hospital for Insane, Pineville, La.

For many years both in this country and Europe no problem has been more perplexing and difficult of solution than the proper care of the dependent insane, and to-day, with the constant increase in numbers of these unfortunates, the question of public care is annually engaging the attention of our State and Federal governments.

The whole question is one of ways and means and the proper handling of the funds appropriated for the care and maintenance of the insane. The subject is one of such importance as to merit special consideration. At no time in the history of the State since it began to assume direct care of the insane down to the present day, has the supply of accommodations kept pace with the demand, and there is little probability that conditions will improve in the future.

Humanity and economy concur in demanding that every rea-

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

sonable measure of comfort and care which may seem to restore the curable and ameliorate the condition of the incurable of the State's insane should be supplied. Generally speaking, the public State hospital for the insane is the best place for treatment, as the chances for meeting experience, kindness and the professional spirit are better than elsewhere. There are more recoveries in the State hospitals than elsewhere, notwithstanding that many such places, mainly through political depravity, are far from being what they should. That there are many excellent private institutions and specialists outside of any institution who are better versed in matters of psychiatry is beyond doubt.

There is no such thing as a specific medicine for insanity. Insane patients have more often been harmed than helped by medicines. Injudicious drugging has co-operated with the causes of insanity and destroyed the chances of recovery. In rare instances the correction of some aggravating physiological derangement, especially when related to the blood vessels, stomach or intestines, has been followed by prompt amelioration of mental symptoms in the early stages more than later; but in most cases of insanity there is a greater risk in giving medicine than in withholding it. The sole aim should be to allow the body to regain its normal working order by means as nearly natural as possible; and as helps to such restoration, surgical and medical aids have been the least important and most likely to be misused. Correct diagnosis is the first and most important step to treatment, and early scientific opinion in all cases of insanity would add to the recoveries through timely interposition for those who may be restored by prompt and appropriate care. Alienists agree that many cases of curable insanity have become chronic through failure to use the proper means at the proper time, or by doing the opposite of what should have been done. It often happens that the only period when the disease can be treated with any prospects of cure is its beginning and the hospital receives the patient when it is too late to begin treatment. Mistaken solicitude is frequently the cause of such delay. The general practitioner, who seldom sees a case of insanity, is at a loss what to advise, and the relatives have probably never seen a case of the kind before, and in their horror for hospitals for insane and the hope day by day that there will be a turn for the better, the patient is kept at home until strength and resources and patience of friends are

exhausted and too late the advice of an alienist is sought or the case sent to an institution. Insanities are, as a rule, self-limited, incurable or run definite courses. Rest, fresh air, suitable exercise, work, diversion and nutritious food are the best general agents, under scientific supervision, for the insane patient, with all the time that may be necessary for recovery.

Showing the importance as regards taxation of making any reasonable effort to minimize the heavy burden which insanity imposes on the State, mention may be made of the fact that in the development of the wealth of the State the life of each individual has an estimated financial value of $200.00 per annum. On the other hand, the average duration of insane life is about twelve years, and the average cost of properly maintaining an insane person in a public institution in this country is about $200.00. It appears therefore that every insane dependent represents a pecuniary loss to the State of approximately $400.00 per annum as long as he remains a public charge. Hence, if the average longevity of the insane is twelve years and the annual per capita cost of maintenance is $200.00, each insane person who fails of recovery during this period represents a loss to the State of $2,400.00, whereas a sane person for a like period would represent a gain of $2,400.00. The mere presentation of these figures will suffice to suggest the importance of determining and adopting that system of caring for the insane which is likely to result in the greatest number of recoveries.

This desideratum can only be had under liberal appropriation for the maintenance of the insane, who are treated in first-class hospitals, whose officers and employees are unhampered and unfettered by partisan influence, which lead to political intrigue and interference. Since the burden rests on the public the process of raising the standard of the care of the insane must be comparatively slow, and its success determined by the resultant effect on the recovery rate. While in a general sense it can be safely asserted that all of the dependent insane are humanely treated and cared for, yet if by raising the standard greater results in the way of recoveries could be had, it would be wisdom and economy to follow that course.

Every well-organized State hospital for the treatment of the insane should have besides the superintendent and the usual number of assistant physicians, which should be one physician to

300 patients, a full complement of specialists on the staff. It is the height of absurdity for one physician to attempt the treatment of all kinds of diseases and surgical disorders. Special cases requiring the services of an oculist, aurist, dentist and surgeon, cannot be effectively treated by the average hospital physician. Again, it is of the utmost importance for every well-organized hospital for the insane to have a pathologist, fully equipped for the scientific investigation in the yet obscure fields of pathology and causation of insanity. It is, perhaps, pertinent to refer to the criticism often made to the inattention of the hospitals for insane throughout this country to scientific investigation. It should be pointed out in answer to this criticism that as a general rule appropriations have been too limited to furnish the means to pay a pathologist and to carry on scientific investigations. It is, however, to be hoped that the future progress of work in the investigation in the most subtle and difficult field of the causation of disease, namely, the morbid condition of the nervous system, which give rise to and underlie the manifestations of insanity, will be regularly provided for in the same appropriation for the State hospital for the insane. The State can confer no greater boon to humanity than to further scientific research that may discover the underlying causes for the diseases of the mind.

Aside from the actual money necessary to feed and clothe the dependent insane, there is, perhaps, no one thing so far reaching in its effects for the welfare of these unfortunates, as well as in conserving the funds of the taxpayers of the State, as the appointment of the officers and others to supervise and do the work of the hospital for insane. If the appointments are controlled by politicians and given as political reward, without regard to ability and fitness, as was formerly the case in many States, it is not only impossible to make progress in the treatment and betterement of the condition of the insane, but as has prevailed in many institutions of this country under such appointments, the worst sort of official corruption has been the result. Graft in the misuse of public funds and in neglect and abuse of the most helpless of human beings has been of common knowledge. The awakening of the public mind throughout our country has, in most States, put an end to this system, better known as the *"spoils system."* It is cause for congratulation that in some States civil service regulations require a competitive examina-

tion for appointment of resident officers in the State hospitals, while in other States the officials selected to superintend these institutions must be not only men of experience in this special line of work, but of known executive ability and probity of character. Either of these ways of selections for appointment to these important positions is incomparably superior to the "spoils system" of making appointments. The provision of making appointments under civil service regulations has resulted, where it is in force, in removing all of these positions from partisan influence, and opened the way for promotion by merit of experienced assistant physicians and other worthy officers. In some States the Governor or the Board of Administrators appoints the superintendent, who is usually allowed to appoint his own staff and others necessary to the work of managing the hospital. The granting to the superintendent of the power of appointment and removal of subordinate officers and employees recognizes a principle which cannot be too highly commended. The superintendent is appointed on the theory that he is competent for the position in all its details. If he is competent he should be allowed to select and remove the subordinates as occasion demands. If he is not competent he should not hold the position. No officer who is held responsible for the management of an institution for insane can manage it with success without being clothed with the authority to employ and discharge subordinates.

In this State it is most unfortunate that every four years, when a new set of State officials go into power, the officials of the hospitals for insane are subject to change simply because there is a change of administration. It matters not how well or with what fidelity and success the superintendent has done the work entrusted to his care he is liable to be kicked out, perhaps without ceremony, if he chanced to be in political disfavor with the appointive power. Just as long as this system lasts there can never be any stable and lasting advancement in the treatment of the dependent insane in this State. No thoughtful citizen can possibly consider this system without condemning it, and it is high time that the proper steps be taken to place a law on the statute books forever divorcing the educational and charitable institutions of the State from the baneful influence of politics. Officers and employees of such institutions should not be allowed to take part in politics beyond their constitutional right to cast

their ballots, and it should constitute a removable offense for them to engage in politics other than to vote. When for any reason a vacancy among the officers occurs, whether by death, resignation or removal for cause, the appointment should always be filled by selecting for the position one of the trained and experienced subordinate officers. And, further, the system of management at all State hospitals for insane should be one calculated to induce young medical officers who wish to pursue this line. As an incentive their salaries should be graded on length of service. They should be permitted to marry and be provided with proper quarters for convenience and comfort. Such a system would be a stimulant and encouragement for men to enter and remain in such institutions, and the State and the inmates of the hospitals would be better off in receiving the service of trained officials. The increase of knowledge which has benefitted the world in general has benefited the lunatic, and it is the advance of science which has suppressed the barbarities. The introduction of scientific methods and aims into hospitals for insane brings humane incentives and good results. Assistance has been given the alienists in the rational care of the insane in proportion to the increase of intelligence in the community and the publicity of asylum affairs. If American investigators in science were afforded the chance enjoyed in many European institutions, unhampered by political caprice, they would make as creditable showing as their foreign confreres, but with uncertain tenure of office and the numberless demoralizations accompanying lay supervision, where scientific care of the sick should be the only consideration, it is not possible for a medical position in an asylum to be other than a mere salaried place, and the keeping of which requires too much anxiety to permit a proper discharge of its ostensible duties. Reforms, however, as well as institutions, grow, and a more scientific treatment of the insane is gradually evolving, in common with other advancement of the world.

Herbert Spencer remarks: "Any system that confers the award for merit upon the undeserving is demoralizing and destructive of social advancement, and though all efforts for reform are out of proportion to the results, the reformer may take comfort that the little that is accomplished will endure."

Discussion of Dr. Thomas' Paper.

Dr. G. J. Gremillion, Alexandria: I wish to congratulate Dr. Thomas on his paper. As far as the law goes, his paper is excellent, but the law is defective in this way: We know the insane are curable in the acute stage, at least 40 per cent of them. I think that it is the consensus of opinion amongst those who are doing that kind of work. The way we are overcrowding the present institution makes it practically impossible to get patients in the acute stage at the asylum, consequently they are under the same environments they were when they contracted the disease. They are unable to get treatment. Why? Because most of us never see an insane patient until after we have graduated, and I think what we need especially in this State is a psychiatric hospital connected with the Tulane department. If a man is mentally unbalanced he does not have to submit to an examination by a judge nor to go into the hospital; he can go in there himself. No matter whether he lives in Orleans parish or DeSoto parish he can enter this hospital, where he can be examined by men who are doing that special line of work. If they find out his case is incurable, they can transfer him to the hospital for those cases. That institution or place could be used for teaching purposes, to educate the coming generation of medical students in psychiatry so as to detect these cases early. If we get interested in psychiatry, we will get more interested in the cause of insanity. If we agitate the subject, we will doubtless get some philanthropist who will build another memorial institution.

Dr. E. M. Hummel, New Orleans: In the first place, I should like to commend what Dr. Thomas has said in his paper, as all the points are well taken, and I think that every medical man will approve them. I think, however, that the medical profession can be reproached with the chief blame for long neglect of insane people. Perhaps even the medical profession has not entirely freed itself from some of the ancient superstitutions that formerly prevailed about mental diseases. It is a conceded fact also that medical schools have been very negligent in the teaching of psychiatry to students, and whatever many of us know about this subject we have learned after beginning the practice of medicine. Naturally, therefore, doctors are usually indifferent about what is being done in the State hospitals for the care and

treatment of the insane. These hospitals are usually situated far from a large center and the appointment of medical officers is, with the exception of those States where the medical profession and the public have manifested a lively and intelligent interest in these institutions, nearly always made from purely political preference. This is, of course, objectionable, and it is one of the most urgent duties of the medical society to encourage measures to accomplish a reform of the situation. It is rather more frequent than otherwise that most of the political superintendents appointed to asylums are men who are not truly interested in medicine or medical studies, and are, therefore, contented to be more or less business managers, while the assistants usually have the control of the medical work. I say this because I believe that a better class of men for the study of psychiatry is to be recruited from the young men who succeed to the positions of assistants.

In regard to the regulations governing the admission of patients to insane hospitals, Dr. Gremillion has raised a good point. The present technical difficulties that must be overcome in securing the admission of patients to the State hospitals should be abolished by a reform of this system.

It may not be out of place to mention my experience in this city with the medical care of its indigent insane. About four years ago, with the permission of the authorities, I went into one of the city prisons where the pauper insane were then kept and began a task which ought to have been undertaken long ago. These patients were cared for under prison regime and received no regular medical attention. This had been going on ever since this city had attained to a large size, yet no physician had manifested sufficient interest in the situation to seek to remedy it. Lest I might seem to be claiming too much credit to myself, I must say that perhaps I myself might not have done so had I not been especially interested in nervous diseases. After some urging the city finally put up a hospital building for the proper care of these patients, but lack of space necessitated placing the building close to one of the city prisons. Although the hospital is entirely separated from the prison and placed under medical authority, there is still an unfortunate tendency to confuse the one with the other. Through the kind attitude of the present Mayor of the city, no political influence has been allowed to enter the institution, either in the appointment of employees or in the

control of the patients. The Mayor is to be commended for this action, as I believe he is actuated by the best motives. I took pains to place the whole situation before him and succeeded in convincing him that the other course would be objectionable. I believe that if we would adopt this method of prevailing upon our State and municipal authorities in helping us to properly care for these unfortunate charges, we would have better success.

The laws governing the admission of patients to this municipal hospital are simple and provide that anyone asking for admission and treatment must be received. We have had to date some half dozen voluntary applications by patients who realized that their own minds were becoming diseased, and who came and asked for admission and treatment. In other instances the patient must only be brought by his friends or relatives, or committed by law authorities. No case can be detained longer than seven days if found not insane, unless at the order of the court. Our chief trouble thus far has been in keeping out cases not resident in this municipality and those able to pay. The hospital is public and for the poor only, and as it is supported by municipal funds is, therefore, only for the care of local residents. We regret our inability to do more, but conditions necessitate these restrictions, otherwise we would be overwhelmed within a week.

Our results thus far fully attest the wisdom of the hospital management, as we have turned out a good percentage of cures, some of which would surely have become chronic and a burden for the rest of their natural lives, and we have succeeded in giving valuable assistance in many ways to both mentally afflicted patients and their much-troubled relatives, as well as the community itself. Thus far the local profession has not manifested sufficient interest in this work, but we hope they will do better later.

Dr. Joseph D. Martin, New Orleans: Speaking of taking these positions out of politics, it is a great pity that the city or State does not seek the physician or the superintendent, and not the position the man. I have been amazed to see only recently the coroner called in as an expert in a case of insanity. When it comes to the filling of a position in an insane asylum a man may be appointed by the Governor of the State who has never treated a case of insanity in his life.

Dr. J. A. Storck, New Orleans: I think as much publicity

as possible should be given to the fact that we have a municipal hospital here. A gentleman to my right did not know we had such a hospital here.

Dr. E. J. Graner, New Orleans: The question of a municipal hospital has been agitated for the last twenty years. It has been very trying and taxing on the city to know what to do with its insane. Usually, the house of detention, where these poor unfortunates are sent, is crowded. They are detained there and some are sent to the institution on Henry Clay avenue, but as a rule, they are not sent there because the city has not the funds to pay their board. The institutions at Jackson and Pineville are always crowded.

I think Dr. Hummel has done a great deal of good in working to establish the hospital as a temporary place for the city insane. His plea has impressed the politicians, and the help he has received from the Mayor has provided means to take care of these unforunate people. Some of them are cured and the others are sent to the State institutions where they belong.

Dr. John R. Adams, New Orleans: I wish to emphasize one point in reference to the law. The law says that no married man can remain in the institution. It takes a young man a year to become familiar with the various mental diseases; if he is going to marry at all, he does not want to be in such a hospital very long. We have young men as assistants in these hospitals, and I think if some law could be enacted allowing the young men, who will take up this work and make it a life study, to marry and live on the grounds and give their entire time and thought to the care of these patients, it would be a great step in advance.

Dr. J. N. Thomas, Pineville (closing the discussion): The point made by Dr. Gremillion of having a primary hospital where patients can be sent before they are taken away to the State hospitals would be all right if we could induce the Legislature to appropriate money for keeping it up. But the Legislature does not appropriate enough money to care for those who are in the hospitals now, and to go before the Legislature and urge the building of an institution to care for these patients primarily is out of the question. It is a hard matter to get sufficient appropriations for our institutions now. We are caring for 630 patients on an appropriation of seventy-five thousand dollars. In my opinion,

it is better to work for increased appropriations for those who are already in State hospitals.

Speaking of the importance of taking in active or violent cases, no one questions that, but I will say that when our institutions are overcrowded and admissions depend upon deaths and discharges to create vacancies, it is a matter of impossibility to admit patients as they fall victims to insanity.

The Early Signs of Locomotor-Ataxia and Other Para-Syphilitic Conditions of the Nervous System.*

By E. M. HUMMEL, M. D., New Orleans, La.

The student of old syphilitic affections of the nervous system is constantly impressed with the fact that nerve tissue bears the most serious and blighting influence of this great scourge of the race. Not only are the lesions in the other tissues of the body in the nature of acute wounds therefore susceptible of prevention and cure, with only a scar or possibly deformity the most regretable result, but as we are constantly reminded, syphilis may not infrequently never through years of its existence declare itself by frank and accessible lesions. Numerous cases of syphilis have been recognized where the subject was truthfully unaware of having ever contracted a primary sore. Inherited syphilis may likewise be so benign in its outward manifestations as not to arouse the suspicion of the medical attendant of its presence. Indeed, the writer believes that something is yet to be learned relative to the operation of syphilis in its actual or non-transmissibility from antecedent to offspring. The study of the curability and the laws of hereditary transmissibility of syphilis will probably finally lead to the discovery that the race is acquiring such a degree of resistance to spirochetes as to cause numerous cases to be so mild that they produce only an inferior state of the general health and reduced tonus in the nervous system, leading to premature involution, neurasthenia, inferiority in the various capacities, psychic depression and finally paresis or tabes, possibly; or else recover spontaneously. The Wassermann blood test has assisted greatly in the study of this question and has laid a few more obscure ailments to the door of syphilis.

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

The scope of this paper will not permit of an extensive discussion of this subject, but I will attempt to consider some of those primary degenerations in the nervous system regarded as remotely caused by syphilitic toxins in the body. Many of the German school of neurology had long maintained that all cases of tabes and paresis were of syphilitic causation, and the Wassermann reaction has tended strongly to confirm their position. I believe that such is the case, and in the following remarks it is implied that the early and mild meta-syphilitic conditions of the nervous system are almost identical with the grosser pathology of tabetic degenerations, and differ only in degree from the latter. Some benefit is to be derived from close study of the early meta-syphilitic traces in the nervous system, because judicious treatment at that time has distinct value and may lead to an arrest of an otherwise incurable disease. In addition to the assurance derived from such results in many cases, the writer considers that this contention is as logical as that of syphilographers and neurologists to the effect that insufficiently and untreated cases of syphilis most frequently lead to tabetic and paretic states.

Although loss of the knee jerks, Argyle-Robertson pupils, ataxia, the incidence of stabbing pains, visceral crises, sense of constriction about the body, reduction of the sexual power, disturbances of the sphincters and certain paresthetic phenomena are, as a rule, the distinguishing symptoms of tabes, it must be understood that not all or even any particular one of these are necessary to establish the diagnosis of tabes. The lesions of para-syphilis are situated with singular regularity in the sensory half of the nervous system, and the functional disturbances constituting its symptoms are therefore practically always sensory. Tabes by selection attacks the ganglia of the posterior roots of the spinal cord, and as a consequence its symptoms are most frequently situated in the lower segments of the body. It should be kept in mind, however, that the types of so-called high tabes involving the arms and cranial nerves alone are comparatively frequent. Further, that long before the frank picture of tabes has assumed expression, slighter symptoms can be noticed and to a trained observer are just as characteristic.

One of the most frequent clinical types of para-syphilis of the nervous system is a sort of neurasthenia, associated with a peculiar type of psychic depression, in which the patient notices that he is

unable to experience with any degree of appreciation the strong emotions and that his zest and interest for matters of even great importance to him is dulled or lost, though he recognizes fully the logic of the situation. Although at this time the sexual mechanism is without fault, the associated higher nervous characterizations are abolished. All the organic appetites suffer in a similar way. Fits of apathy and depression occur without apparent cause. We have often made the observation that metasyphilitics have inordinate susceptibility to the effects of alcohol, as they are either made quickly and absurdly drunk or often put into a highly nervous and uncomfortable condition by a small amount, and sometimes a psychosis lasting several days will be provoked by a drinking bout. I do not recall having ever seen mention of this in literature, but have made the observation often enough to advance it as a fact. A mild form of amblyopia is apt to be one of the features of the condition, due either to a very slight involvement of the optic nerve or to the reduced psychic state. Such patients are given to sleeping a great deal, especially if they attempt to read. With it all the body weight and apparent general health is not affected; on the contrary, they frequently become obese. If, however, the skin surface is carefully noticed, a sort of pallid hue is often observed, which is obviously due to a depraved hemic state. I am not aware that any hematologist has ever studied the blood condition of old syphilitics. Such an endeavor would yield valuable results. Even at such an early manifestation of the condition under consideration the patient has usually begun to experience little sharp twinges of pain about the body which probably first serves to direct suspicion to the nature of the condition. Frequently a negative syphilitic condition is given and a single Wassermann test of the blood might likewise prove negative. The investigation should then be carried to the cerebro-spinal fluid, and a cytological count should also be done. Wassermann tests of the spinal fluid are apt to be more reliable than tests of the blood serum. Lymphocytosis of the cerebro-spinal fluid is perhaps as valuable as the Wassermann test.

Either in the very early stages or a little later, ptosis of one or both of the eyelids is apt to occur. About this time certain slight disturbances in the muscle and joint sense have already developed, but will only be detected if the examiner uses the more refined methods, such as placing the patient on his back and hav-

ing him attempt to do accurate and purposive movement with the free lower extremities, with the eyes closed. The upper extremities can best be tested in this mannr by having him do similar refined purposive movements as well as determine differences in weight between objects identical in appearance by lifting them. The patient is also apt to experience paresthetic disturbances and a sense of numbness in the distribution of nervcs, the trunks of which are exposed to pressure and tension during the customary activities, e. g., the ulnar nerve. The pupil should bc closely watched, as it affords valuable signs at this time. Artificial light which can be accurately controlled should be used, and by this means the experienced observer is able to note slight degrees of sluggishness in reaction to light, which must be carefully interpreted. Not only is rapidity of the movement of the pupil as it closes down to the stimulus to be noted, but what is equally important, when the pupils are steadily exposed to the light it should be noted whether the iris springs back and expands after a second or so, even though still under the stimulus of light. This is equally characteristic of weakness of the third nerve fibers. Distortions in the outline of the pupils very often signifies either the previous existence of a specific iritis, resulting in adhesions, or else disturbed and irregular innervation of the iris fibers. Such disturbances in the outline of the pupil, when not otherwise explained, are perhaps as important in the recognition of metasyphilis as the Argyle-Robertson pupil. Inequality of the pupils has a similar, though not such a strong significance.

As the regenerative processes reach a more severe grade, such pronounced symptoms as degeneration of the optic nerve is so frequently caused by the condition we are considering as to immediately arouse suspicion of its presence. It sometimes occurs as a single symptom for years. It has been noted that blind or nearly blind tabetics scarcely if ever become ataxic. Similar involvement of the auditory nerve sometimes occurs. Likewise implication of the Gasserian ganglia is apt to lead to parasthetic disturbances in one side of the face and perhaps to trophic manifestations. Oppenheim mentions a case where spontaneous loss of the teeth, with atrophy of the alveolus, was an early occurrence leading to the suspicion of advancing tabes. Other of the cranial nerves which have sensory functions may likewise become involved. The pneumogastric may be thus implicated, with a de-

cided disturbance of the rhythm and rapidity of the heart, with certain gastric symptoms. While the stomach and bladder are the viscera most frequently involved in so-called tabetic crises, most any viscus which is well supplied with sensory fibers, especially if it be closely connected with a sympathetic plexus, is apt to suffer. Thus have crises of the eye, of the larynx, of the heart, and of the intestines frequently been noted. Any of the more pronounced lesions usually seen in advanced tabes may occur in an isolated way in the early progress of the disease. Thus do we sometimes see perforating ulcer, Charcot's joint, the loss of the nails, together with a harsh, dry condition of the hair supervening. Single involvement of one or several posterior nerve roots of the spine in the mid-dorsal region might occur, giving rise to a band of either hyperesthesia or loss of sensation around the body. Even a herpetic eruption might accompany the sensory disturbance. I remember seeing a man who was compelled to wear a metal cage about his body to protect himself from the pressure of his clothing against a hyperesthetic band. Aside from Argyle Robertson pupils this man seemed to have a normal nervous system.

General Paresis. A Plea for More Thorough Prophylaxis.

By HENRY DASPIT, M. D., New Orleans, La.

To those who are brought in direct touch with large numbers of the insane there appears quite forcibly the great prevalence of paresis, which in the light of our present knowledge we must accept as entirely due to syphilis. Although our own experience and that of all other observers places paresis as incurable, we must regard it as preventable. To go into the prevention of its cause would take us too far from the purpose of our remarks. The extensive campaign waged on the prevention of syphilis will, we hope, rid distant generations of this scourge. At the present time and for some time to come we must do our utmost to subdue the ever-present evil.

In a series of twenty cases of frank paresis, the Wassermann reaction was found to be positive in 100 per cent. These findings will be seen to be thoroughly in keeping with the more extensive work of other observers, which forces us to accept the spirocheta pallida as the causative agent. This predominance of

positive reactions, in addition to confirming more remote theories, brings us squarely face to face with the startling truth: the profession has not been handling syphilis properly. That is, if we grant that this malady is curable, which I think we all do. Fully 50 per cent of more than 100 cases of paresis, it has been ascertained received a classical course of treatment as prevailed in the recent past and is yet in vogue with many of the profession. In the majority of these cases there is no doubt as to the care with which this method was employed. In addition to this, I may quote remarks of one of our syphilographers that he will willingly wager ten to one that he can obtain positive reactions in every case handled in the ordinary manner if that case is taken three months after the cessation of all treatment. This broad statement has been amply confirmed by careful Wassermann reactions in such cases. Again, many observers are reporting relapses after more than one salvarsan treatment, and others are giving clear reasons for great caution in more than one infusion. Hence, there is nothing left but to acknowledge that we have not been treating syphilis properly and there is absolutely no other manner of prophylaxis in paresis than the conclusive cure of syphilis, and our work must be done long before there has been any inroad in the central nervous system.

Our inability to attack paresis with any success whatever is due to the well-known fact that symptoms of the disease are not evident until irreparable. Cortical atrophy has taken place. Therefore, at the stage when these cases are admitted to our institutions it becomes rather a problem of proper care and nursing than of treatment. Primarily these patients should be minutely clean. At least one full bath daily with any suitable hydrotherapy deemed advisable. General massage has proven of service in keeping up tone. The finger nails should always be kept closely cut, as these unfortunates are notorious for their tendency to inflict injuries of a minor nature. Even the slightest abrasion merits care, as the process of repair is always delayed. The diet should never be heavy and preferably of a low proteid content, as we note remarkably constant indicanuria in promiscuously fed paretics. The bowels should be evacuated daily, but care must be exercised in the choice of purgatives. An often neglected point in caring for the insane, which should be given more attention in all cases, is oral hygiene. And all this, with much more, must be done for

the comfort of these doomed souls, whose future is clearly self-limited and who should never have arrived at this state.

The diagnosis of paresis is usually clear cut and may in the majority of instances be made before the mental picture is complete, but even then our early diagnosis availeth naught. But errors are frequently made, and in some instances where the mistaken condition may respond to treatment. Some of the most frequent errors include cerebral syphilis (syphilitic endarteritis), non-paretic tabes with psychosis, arterio-sclerotic atrophy with cerebrellar involvement, and finally the para-syphilitic states with psychosis due to their hypersusceptibility to alcohol. We must be on guard for remissions that may occur both early and late in the disease.

The tonic or mixed treatment, with incomplete courses of inunction, so popular with the busy practitioner, is very obviously inadequate, irrespective of the length of time employed. It has been demonstrated that organisms become tolerant in culture to the presence of weak solutions of bichlorid of mercury, etc.; so, I agree, does the pale spirochete grow in a system where the mercurials are gradually introduced and even though finally pushed to the patient's tolerance are rarely kept so for long. It is unfortunately the tendency with many when the disease is observed some years after the initial lesion to give a short course actively and then put the patient on mixed treatment or potassium iodid alone, which in neither case will keep a reaction negative for any time after discontinuance of treatment. Taking it generally, whether para-syphilis of the nervous system or any other demonstration, the idea should be whenever there is a positive Wassermann reaction, clinically supported, there is an active syphilis, and except in cases of frank paresis the case should be energetically attacked for the three-year period, irrespective of how recent or remote the initial lesion may have been. In positive reactions, even the clinically negative, the therapeutic test will decide the advisability of long attention. We, of course, admit that incidents may arise sufficient to justify discontinuance of treatment, but failure is usually due to lack of attention by the one directing treatment. We will not clear up tissue changes, but we may arrest further progress of the disease. To this end we would commend, of course, Salvarsan, not one dose, but several, and not this alone, except probably immediately after the initial sore, when all organisms are free in the circulation and we are now seeing

frequent returns to the positive reaction. But rather do we look for permanent results following the intensive treatment and always for a period of three years. By intensive we mean the abrupt saturation of the patient with mercury, and by any one of the various means at our command or by combination, remembering that different modes of administration seem to demonstrate over-action in different portions of the alimentary tract. It will be found best to give treatment ten months during the first year, eight the second and six the third, with intervals of rest making up the time thus omitted. Then for a year if we get negative Wassermann every two months we can say, in the light of our present knowledge of syphilis, the case may be regarded as cured.

In concluding I would say: Treat every case of syphilis, old or new, with painstaking thoroughness for at least three years. Thus can we guard against the development of paresis.

Intramuscular Injections of Mercury (Emulsion) in the Treatment of Syphilis of the Nervous System.*

By L. L. CAZENAVETTE, M. D., New Orleans, La.

The results obtained in the treatment of a number of cases of syphilis of the nervous system, by an intensive form of treatment as used by Prof. P. E. Archinard for nervous diseases in the service at the Charity Hospital, has been so gratifying that, with his kind permission, I present the following short paper:

Mercury has been, and is still, our best weapon against the ravages of the spirochete, and it is of value in all stages of syphilis. (Although remarkable results have been obtained by a single dose of salvarsan, most writers believe to-day that in the majority of cases it is not only necessary to repeat the injection of salvarsan two or three times at intervals of a few weeks, but it is further necessary to follow this by the administration of mercury, in order to insure the proper destruction of the spirochete and cure the disease. The advent of salvarsan has helped to strengthen the belief in the therapeutic possibilities of mercury.)

Mercury has stood the test of time, has proven its worth, and in anticipation of the time when some other drug, working on the lines of salvarsan, shall have evolved from the laboratory of

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

experimental therapeutics, let us cling to and do homage to mercury.

The methods of administration of mercury into the system have been varied and to enter into the discussion of these would indeed be most interesting and instructive, but in the present instance could cause us to diverge from the main theme, and, furthermore, take up too much of your valuable time.

It will be sufficient to mention that in the treatment of syphilis of the nervous system it is often of great necessity to produce rapid mercurization in order to stay the ravages of the disease as promptly as possible.

To this end the method of administration which appeals most strongly is the intramuscular injection method, because it affords an accurate method of administration of the drug, because it is at all times under the control of the physician, eliminating such factors as forgetfulness or indifference on the part of the patient, and furthermore because it affords a means by which the intensity of the treatment can best be controlled.

The intensive form of treatment used is composed of the following formula:

℞ Hydrargyri biniodidi..... gr. v
Potassii iodidi..... gr. v-x
Olei olivarum..... ℥i

Macerate first two and add a few drops of water. Then add oil and sterilize thoroughly.

Dose: From 10 to 20 drops, or from 1/10 gr. to 1/5 gr. of biniodid of mercury.

A modification of above formula follows:

℞ Mercury biniodid..... grs. viiss
Castor oil..... ℥ivss
Olive oil, *q. s. ad*..... ℥i

Place in porcelain dish and keep on water bath and when clear sterilized thoroughly.

The dose is from 10 to 20 drops or from 1-10 gr. to 1-5 gr. of biniodid.

The injections were made by means of a hypodermic syringe, a needle of large calibre being substituted for the ordinary hypodermic needle, This is necessary, because it is impossible to suck up the oil through the ordinary needle. The large calibre needle should be long enough to reach through the skin and subcutaneous

fat, as it is essential to enter the muscle. It is needless to add that the utmost care should be taken in sterilization of the needle before use.

The site of the injections has been in the buttocks well above the tuberosities of the ischia, the other buttock serving for alternate doses.

Although pain and local irritation have been the chief objections to this form of treatment, the patients treated have not complained of any unusual pain during or following the injection, and have all borne the treatment well.

Observation No. 1. E. H. M., white, male, 40 years of age, laborer, came to clinic at Charity Hospital in September, 1909. Complained of spells, followed at times by unconsciousness and weakness on left side of body.

Family history: Father died at 76 years, cause unknown. Mother died at 73 years, cardiac disease. Three brothers living and well, one sister living and well. No history of rheumatism, nervous disease in family.

Personal history: Native of New Orleans, lived here always. Had measles, typhoid fever and malaria. Sixteen years ago had initial syphilitic sore, for which he took internal treatment three months only. Habits: Drinks beer plenty, chews tobacco. In April, 1906, had a peculiar spell, says, while at work, he felt a sensation of numbness on the left side of body, with weakness beginning at the left foot and leg, this got worse and involved the right hand, right arm and he then suddenly lost consciousnses and fell to the floor.

Such spells came back two or three times a week, always preceded with sensory and motor disturbances on left side of body, but not always accompanied with unconsciousness.

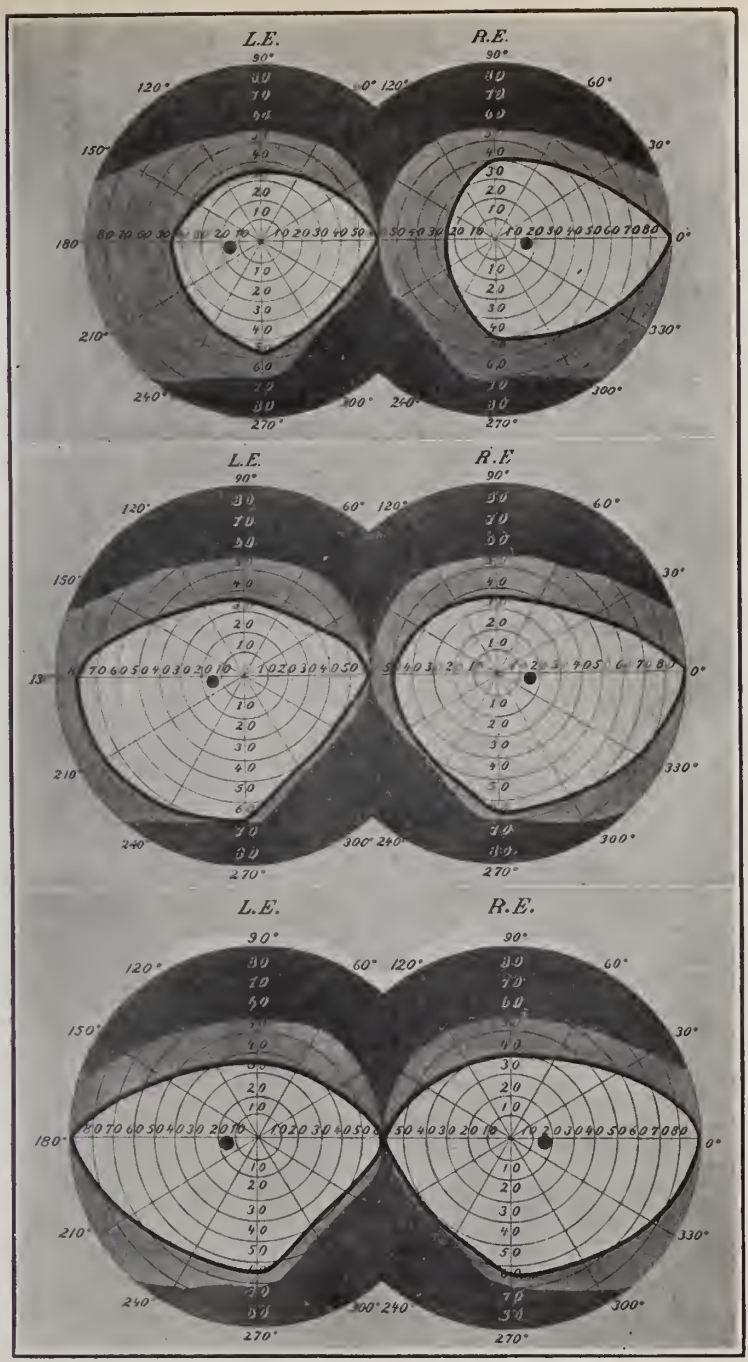
At that time he was placed on the usual mixed treatment and was much improved. In the beginning of November, 1911, however, he came back stating that he had had a very severe spell in August, 1911, and since then he had been troubled a great deal with his vision. He complained of being troubled with flashes of light and dizziness. These flashes were noticed in both eyes. An examination by perimeter was made and the fields of vision were found to be much contracted on the inner field of right and the outer field of the left eye. (Just one-half normal fields.)

With the past history of the patient, it became evident that we were dealing with a spyhilitic growth affecting the optic radiating fibers on the right side of the brain.

He was given an intramuscular injection of mercury, on November 18, 1911, of one-tenth grain of biniodid. This was repeated twice a week. At the third injection he was given one-fifth grain. This was the maximum dose given. The result became apparent a few days following the first injection and by the time he was given the tenth injection the objective visual disturbances were no more present and the perimeter showed normal fields. It was thought advisable, however, to keep him longer under this intensive form of treatment. He has now received thirty-nine injections and he has never had any symptoms of ill effects of mercury, ptyalism, etc. He is to all appearances clinically well.

Observation No. 2. H. S., white, male, 34 years, watchman by occupation, came to clinic at Charity Hospital on April 24, 1911.

Complaint: Shooting girdle pains around abdomen, coming on irregularly and of indefinite duration.



Upper—Case E. H. M., November 18, 1911, day of first injection, showing contraction of inner field of r. e. and outer field of l. e.

Middle—E. H. M., December 2, 1911, day of fifth injection, showing marked improvement.

Lower—E. H. M., January 6, 1912, day of tenth injection, showing normal field for this patient. Diminution in upper fields due to prominent eyebrows and deeply-set orbits.

ILLUSTRATING DR. CAZENAVETTE'S ARTICLE.

Family history: Father died 67 years, cause unknown. Mother living, age 58, health good. Three brothers, all well. Two sisters, well. No insanity, tuberculosis, rheumatism, cancer, paralysis.

Native of New Orleans, where always lived. He does not remember having had any of the infectious diseases. In 1907 had sore on penis, syphilitic in character, no suppurating buboes. Took internal treatment for a couple of months only.

Habits: Alcohol, not to excess, uses tea and coffee moderately.

His present illness began in 1909, two years before his applying for treatment. He then suffered with lancinating pains in different parts of the body and limbs, he then felt an unsteadiness in his walk.

Examination: His state nourishment good, mucous membrane good, gait ataxic. Facial expression good.

Lymphatic glands not sensitive, but enlarged in cervical and inguinal regions. Circulatory system normal except for slight intensity of blow of front sound at base. Respiratory, alimentary systems normal. Slow in urinating, otherwise no trouble with urinary system. Has general ataxia, but not excessive.

Cranial nerves 1, 2, normal; 3, 4, 6, at times complains of diplopia. Has drooping left upper lid. 5 normal, 7, 8, 9, 10, 11, 12 normal.

Motor power fair, but control lost. Romberg's sign present. Nutrition of muscles fair. Has no tremor athetosis or convulsions.

Sensation to touch fair, but delayed to pain, very bad to temperature, muscular sense bad. Complains of numbness of different parts of the body.

Reflexes: Conjunctival, abdominal and cremasterics reflexes normal. Plantar reflex lost. No Babinsky. Pupils unequal, right smaller than left, neither perfectly round. They respond to accommodation, but not to light. Argyll-Robertson symptoms present, therefore. The scapular, triceps, supernator-biceps Achilles tendon and knee jerk reflexes lost.

Diagnosis: Locomotor ataxia.

This patient, although presenting the marked symptoms of an affection resulting from the prolonged effects of the spirochete and its toxins on the nervous system, a condition which all acknowledge difficult even of amelioration, was placed under the intensive form of treatment and given one-fifth grain of biniodid of mercury twice a week. He has taken so far forty such injections and has now been under observation for a year, his condition, though not cured, has been markedly benefited. The treatment here may be said to have caused an arrest in the progressiveness of the disease.

OBSERVATION No. 3. J. T., white, male, 44 years of age, native of Spain. In United States four years. Fisherman by occupation, came to hospital on March 2, 1912, complaining of a difficulty in walking.

Family history: Negative.

Personal history: Has been in excellent health until about a month previous to his admission when, after an unusual hard day's work, he felt a gradual weakness in the lower limbs, which caused him some difficulty in going about. Within a few days he felt a sensation of numbness in the lower limbs and, at the same time, had difficulty in controlling the bladder, and his bowels would not act except with purgatives. This had been getting progressively worse.

At the time of the examination he showed marked weakness in both lower extremities with increased deep reflexes and marked sensory disturbances (anesthesia). Extending to the ninth dorsal spine, where there was a zone of hyperesthesia. He was unable to control the bladder.

A history of syphilitic infection could not be relied upon, but the glands inguinal and cervical were much enlarged.

With this as sufficient evidences that the primary cause of this myelitis

was syphilitic in nature, he was placed on the intensive form of treatment and given an injection of at first ten gtts. of the emulsion, the second injection was of fifteen gtts., and the third, twenty drops (or one-fifth of a grain) of biniodid.

He received in all twenty injections and his condition has markedly improved. He is now able to control the bladder and, though still weak in the limbs, is able to go about comfortably.

Observation No. 4. J. M., white, male, 40 years of age, native of New Orleans, barber by occupation, consulted Dr. P. E. Archinard in 1906, because he had suffered with weakness on right side involving hand, particularly, and with a difficulty of speech.

Family history: Negative. F. d. 92. M. d. 87—S_2 B_1.

Personal history: Has enjoyed fairly good health, except from attack of measles many years ago. Has never had any accident or operation, but admits having had initial syphilitic sore some fifteen years ago. At the time, he was given treatment a very short time only.

Habits good, smokes moderately.

Present illness began a few days prior to his coming for treatment. While shaving a customer without any premonitory signs he felt a difficulty in holding the razor in the right hand and he felt a peculiar numbness in that hand also. He attempted to talk, but found that he had difficulty in expressing himself. The weakness at that time extended to the right leg also. He did not lose consciousness. A week afterwards he had a similar attack, beginning in the right hand and then involving the right arm and right side of face and right leg. This was preceded by clonic movements in the hand and ended in unconsciousness, which lasted but a short time. It was followed by a greater inability to express himself in speech.

On examination he was found to have a marked weakness on the right side of body, involving right lower half of face, right arm, right hand and leg. There were no sensory disturbances, but the deep reflexes were exaggerated on that side. The left side of body was normal. The speech was markedly affected. He had motor aphasia.

The diagnosis of Jacksonian epilepsy with a syphilitic base was made. He was placed on the usual inunction treatment with K. I. internally. This he followed more or less accurately and resumed his occupation. About one year ago, or five years after the first trouble, he returned with a recrudescence of his malady, but this time it involved the lower cord and he became weak in both lower limbs and unable to control bladder. This was accompanied by a feeling of numbness in the lower limbs. Realizing that his condition was one of myelitis with syphilis as the cause, he was placed on the intensive form of treatment, beginning with the initial ten drops dose and increasing to twenty drops. This has been kept up and he has had in all twenty-one injections. They were never given oftener than twice a week. He improved markedly and has been able to return to work, his aphasia has completely disappeared.

In conclusion I would say that the advantages of this method over other methods of administering mercury are such that in cases of syphilis of the nervous system, when it is desired to produce prompt action on the existing lesions, this method should be given the preference.

The chief advantages are: (1) The treatment is entirely in the hands of the doctor. (2) The amount of mercury administered is small, the dosage small. Salivation is unfrequent and

the amount absorbed into the system is definite. (3) There is no liability of disturbances of the alimentary canal.

Discussion on Dr. Cazenavette's Paper.

Dr. E. M. Dupaquier, New Orleans: My own experience confirm the statement made by Dr. Cazenavette regarding the use of mercury and arseno-benzol (606) (salvarsan).

As you know, mostly all eminent syphilographers at present concur in the opinion that arseno-benzol has the power of impressing rapidly, is successful where mercury fails, is healing when nothing but the knife seems promising. Yet it is dangerous, fatal, when used inconsiderately, chiefly where such contraindications as lesions of the kidney, heart, nervous system exist, though the administration be strictly technical. Surely it is worth taking the risks in refractory cases; for example: malignant syphilides, osteopathics, arthropathies, visceropathies, cephalalgia, iritis, etc., but it is useless to take them in hemiplegia, general paralysis, tabes, in fact, in all parasyphilitics, even at the onset. Peterson wisely said that it will take about twenty years to fix the value of dioxydiamidoarsenobenzol. Certainly, mercury is yet the safest and, in all cases, it must always be associated with 606.

The intramuscular injection of mercury has served me well. I have here samples of the various preparations I use. My outfit, as you see it here, is quite simple, a plain whole glass syringe, a long and stout needle (the needle must be stout for oil preparations).

Referring to interesting points in cases of my own practice I recall the influence of alcohol addiction on the Wassermann test, a case proving negative when first seen and subsequently positive when alcohol was discarded. I recall the necessity of using 606 with mercury in those who are to marry, presenting no accidents, but showing a positive Wassermann.

Now, here is a patient with a visceropathy—a stomach case, simulating pylorospasm, ulcer of the stomach. This man had been going the round of clinics, suffering, declining rapidly. He was told nothing but surgical treatment could relieve him. He was in a wretched condition when he came to my clinic at the Polyclinic building. He gave the history of a sore on the penis years ago. Familiar with Diculafoy's reports on syphilis of the stomach,

I started intramuscular injection of mercury, giving also by mouth and rectum massive doses of KI. The Wassermann still present I added to the treatment hectine and, subsequently, arsenobenzol. The results were surprisingly good; this man is now able to work and live comfortably, nourishing better than he ever did for two years. I expect a relapse, of course, but he is practically well.

Dr. L. L. Cazenavette, New Orleans (closing the discussion): I wish to thank Dr. E. M. Dupaquier for the interest he took in this subject and his discussion of my paper. I extend the wish to the members of this society that some of you make use of this form of treatment in cases of syphilitic affections of the nervous system as you may come across such cases in your general practice.

Dementia Precox.*
Some Suggestions for the General Practioner.

By F. W. QUIN, M. D.,
Assistant Physician, Louisiana Hospital for Insane, Pineville, La.

This is a form of mental disease which every physician meets at times in its incipiency, and owing to the lack of interest among the profession in mental diseases it often goes unrecognized and is passed by some as some other condition. If he does recognize it as some mental trouble he passes it on to the nearest psychiatrist and dismisses it from his mind as early as possible as outside of the pale of his sphere. All cannot be specialists and the busy practitioner finds no time as a rule to be delving in diseases of the mind, and considering it beyond his realm, ceases to allow it to add to his worries. But dementia precox, being a form of mental trouble that he is likely to come in contact with oftener than any other, it would be wise to look into some of its phases in so far as they concern the family physician. By so doing he may prevent a few of the younger members of his clientele from drifting into some hospital for the insane, there to gaze upon the remaining days of a comparatively long life in partial mental oblivion, when some well directed efforts made in time by a well-informed family physician may have guided a young life into a higher plane

* Read at the Thirty-third Annual Meeting of the Louisiana State Medical Society, New Orleans, April 23-25, 1912.

of existence and saved a family from sorrow, embarrassment and despair that comes when the judgment of insanity is passed upon a loved member. Of course, this can only apply to those cases which are probably preventable by guiding them along certain lines while they are yet young and tottering on that border-line of demarcation where sanity and insanity meet so fearfully close together. A faulty heredity we cannot correct. We hope in time means will be found to prevent it to a great extent. When that time arrives when medical men can control marriage far enough to say who are fit, faults of heredity will figure less in dementia precox. As yet that is only a fanciful dream that society is not ready to accept. While we may all realize its necessity, we also see the mountain-high obstacles which prevent it becoming a reality in our present state of development. But aside from faulty make-up we recognize other causes that lead to our dementia precox cases. It is to the correction of these that the family physician should bend his efforts as far as comes within his power. To do this he must give it enough thought and study to be able to recognize these cases in their incipiency or formative period for his efforts to bear fruit. He will find in his practice many under twenty-five years of age whose minds are warped enough to be called erratic. He can readily see they are not normal. They are still on that shadowy, vague borderline which divides the normal and sane on one side from the abnormal and insane on the other. It is here, in the early formative period, that a guiding and intelligent mind must recognize and take charge, or the years soon will pass when the seed develops into a harvest to be reaped by a hospital for insane and indexed as dementia precox, to remain in many cases until death as a charge of the State and a burden to the taxpayers. It is no fault of the young graduate in medicine that he has no knowledge of mental diseases. The curriculum is full enough to keep him from delving into things he considers outside of his province and not expected of him upon examination day. He is able, just as the layman is, to recognize a well-developed case of insanity, but in its incipiency he often knows little more of it than the layman. By being able to recognize at least a few of these cases before development, perhaps he can guide them to the proper side of the border line and save them to their families and to a more or less productive and self-sustaining life. If allowed to go unhindered to maturity it becomes a case of the "survival of

the fittest," which is a brutal doctrine. It behooves us as humans to teach and aid all to survive. It is gentler and more humanitarian at least. In many cases of mental disturbance, as mania or general paresis, recovery or death usually terminates the case without great delay, but not so in the average case of dementia præcox. After the mental storm subsides, frequently a childish brain in an adult body is left as a derelict to drift on through succeeding years to become some village landmark, made miserable by the small boy's taunts, and becoming the butt of practical jokes and ridicule of ignorant and pitiless people of mature age, or become an inmate in some hospital for insane for the many long years of a mentally beclouded existence. It is a most fortunate thing for these hospitals that such a class of mental defectives exist, for they bear to a great extent the brunt of the work of keeping such institutions clean by taking the places of helpers that would cost much money out of an inadequate appropriation in many cases, if paid labor had to be used for all the work they do, and paid out of the small per capita allowance allotted to the average Southern hospital for insane. To save these unfortunate children who appear to be candidates, in later life, for the label of dementia præcox, the family physician should endeavor to fit himself to recognize such cases and offer his advice to parents and teachers and guardians in cases of children who appear neurotic, shy, precocious, dull, cruel to mates, vicious, thievish or unstable through heredity, environment, social condition or any other condition which furnishes fertile soil for the production of dementia præcox in later years. There are many who walk on thin ice, whom the family physician is the only person in the world that is in a position to recognize and help. Even these few he cannot help in many cases. His advice may not be heeded. None of these can he help if he be unable to recognize the conditions that precede this mental disease and render his assistance and advice early. It is not likely that his financial reward will be commensurate with his efforts, but he will have the satisfaction, at least in his own heart, of having conferred on humanity a distinct favor, even though his reward be only the consciousness of having done his fellowman an unrecognized favor.

Epilepsy. A Few Remarks as to Cause and Treatment.*

By H. L. FOUGEROUSSE, M. D.,
Assistant Physician, Louisiana Hospital for Insane, Pineville, La.

Epilepsy is frequently a subject for discussion. The epileptic occupies a place in the minds of the profession and laity different from that of any other human being. He is a conspicuous object of pity, special solicitude, neglect, abuse, derision, humane care, legal inquiry and of scientific study. In spite of extensive investigations by the foremost scientists, armed with the most modern instruments and appliances, practically nothing has been done towards offering explanations as to the real cause or causes of this dreaded abnormal condition. An insight into the nature of this malady has as yet eluded us. The entire subject remains entirely hypothetical. No uniform anatomical findings applicable to all types have yet been demonstrated.

Some authorities contend that all epilepsies depend upon visible organic brain lesions. One theory is that embryonal abnormalities are responsible for the malady. Another view, as expressed by Spratling, is: "epilepsy is more often due to a condition of specific systemic poisoning—a condition in which deep-seated errors exist in the fundamental principles of nutritution, metabolism, in the ultimate cell life—in other words, the alpha and omega of nutritution." The rather old theory of disturbed cerebral circulation is at this time being advocated by certain of the English authorities as the cause of the convulsion, along with the subsequent unconsciousness, to be noted in the grand mal types of the disease. The etiology and mechanism of epilepsy presents a most complicated problem for modern scientists to solve, and it will be cleared only by the combined efforts of the chemist, neurologist, psychologist and anatomist. Whether epilepsy is a disease per se or a symptom, and regardless of the theories pertaining to causation, etc., the following, as suggested by Drewry, seem to be the most practical basis to work from if we are to add anything to our knowledge of epilepsy. Heredity plays a most significant role as an etiological predisposing factor, in that the parents of epileptic offspring are frequently the subjects of epilepsy, insanity, alcoholism and various nervous diseases which make possible an inherited condition of the nervous system, which eas-

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ily develops into epileptic fits as life progresses. That the disease is due, perhaps, to one or more of the following causes and others, viz.: the presence of toxins in the gastro-intestinal tract; various poisons, such as alcohol, lead, etc.; defective metabolism, diabetes, gout, cerebral hemorrhage, infectious diseases, emotional diseases, fright, mental stress and numerous peripheral sources of irritation.

Because of a lack of more definite knowledge of the pathology, morbid anatomy and etiology applicable to all forms of the malady, experimental and empirical therapeutics are still resorted to. Books and journals teem with mention of medicinal remedies that have been tried with varying results. Few drugs are of much practical benefit. There is no specific remedy and none in sight. The gastro-intestinal tract, skin and kidneys should receive careful attention. Elimination by judicious purgation and combating the formations of toxins prevent many seizures. Bromids in small doses, largely diluted with water, are helpful, but when withdrawn suddenly tend to precipitate status epilepticus, which is a dangerous condition, and should be met by prompt and heroic measures, such as bromids and chloral by rectum, inhalations of chloroform, hyosein by needle, etc.

The dietetic treatment, prophylactic in results, is the most useful and essential treatment that can be instituted in the welfare of this unfortunate class. Summed up, it means easily digestable, simple foods in reasonable variety and never in excessive quantities. Pork, veal, ham, fried food stuffs should be avoided, along with alcoholic beverages. This, in conjunction with moderate exercise, fresh air and a simple life, is the best yet offered. Surgical procedure is seldom resorted to and is beneficial only in the reflex types of the disease.

My Experience with Poliomyelitis or Infantile Paralysis as Health Officer for the Parish of Morehouse During 1911.*

By O. M. PATTERSON, M. D., Bastrop, La.

Owing to the fact that poliomyelitis, or infantile paralysis, prevailed in our parish for about six months during 1911, beginning February 20, in Bastrop, and ending in September, and during that time there were in the parish about sixty cases, I thought it might

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be of some interest to the profession of the State to make a report of my experience with this disease for that period.

On Sunday, February 12, there was a christening at Bastrop, at the Episcopal Church. Parties from Ouachita Parish, a district infected with infantile paralysis, about fifteen miles southwest from Bastrop, came here. Mrs. Dr. Trezevant, from said locality, brought her five-year-old son to have him christened. This child was not sick, seemingly, on that day, but was taken ill with infantile paralysis on the following day. Just eight days afterwards Mrs. McBride's child was taken with infantile paralysis; Mrs. McBride's child did not attend church or come in contact with any one except its mother. Will say that Mrs. McBride acted as godmother for the Trezevant child. The McBride child was taken ill as follows: Chill, followed by moderate fever on the first day, chill recurring with a gradually increasing temperature for four days; after the fourth day chill did not return, but fever was still present. On the fifth day the child became drowsy and was sleeping most of the time, but had no more chills or fever. At this time it was noticed that the child was paralyzed in all four limbs, body and neck; no special softness or soreness was noticed in muscles paralyzed, and no atrophy present, and no paralysis except in the right leg, and a slight spinal curvature after a period of over twelve months.

CASE No. 2. Was taken ill eight days after Case No. 1, as follows: Colored child, age 3 years, male, chill followed by fever, great restlessness, chill coming on every day and fever every day for five or six days, after which chill and fever subsided; child became drowsy and sleepy and unable to turn around; then it was noticed that all of the muscles of the body were partially paralyzed, the right lower extremity more than the left, left arm more than the right. The child has gradually improved and to-day can walk without support, though limping, has fairly good use of both limbs. The child's grandmother was a servant at McBride's Home, returning to her daughters house at night, who did the washing for the McBride family, among which on this occasion were some bed sheets used by the McBride child during its illness. The colored child came in contact with some of these sheets by wrapping them around his body, and eight days from that date he was taken with infantile paralysis.

CASE No. 3. Lived about 200 yards north of Case 2; colored, age about 2 years, female, chill, followed by fever and died next day with convulsions.

CASE No. 4. Was taken with chill, fever lasting about five days, colored, age 4 years, female, fever subsided and paralysis was noticed in the muscles on the back and lower limbs; child up to short time ago, had not recovered sufficient use of its limbs to walk; this case occurred just eighty-two days after Case No. 2.

CASE No. 5. Was taken ill in the same household as Case No. 4, colored, age about 1 1-2 years. Same symptoms as Case 4, resulting in paralysis in the lower limbs, which exists at this time. This makes in all three cases in this household.

Case No. 6. Nine miles northeast from Bastrop, colored child, female, age 9, had chill and fever on March 15, fever lasted one week thereafter; on the third day there developed marked paralysis in all four limbs and muscles of the back, more marked in right side than in left; marked atrophy, no sensory symptoms; child remained in this condition about three months and died, there never was any improvement in this case.

Case No. 7. Lived near case 6, colored, 7 years, male, had no communication with case 6 only by colored woman visiting the two families every day; was taken with chill, followed by fever of few days' duration, showed no paralysis except external rectus in both eyes; after three or four weeks' duration paralysis subsided in one eye, and only slightly so in other at this time.

Case No. 8. Lived in same household with case No. 7, female, colored, age three years; was taken ill April 1, chill, followed by fever, which lasted four days; paralysis came on the third day in all four limbs, improvement begun very early, after two months there was slight paraylsis left.These two cases undoubtedly acquired the disease from case No. 6, as the colored nurse helping to nurse No. 6 would call on the mother of cases 7 and 8.

Case No. 9. About the first of April I was called to see a colored child, female, age 5 years, which lived about 6 miles north of cases 7 and 8, had been sick one week when I was called; symptoms related to me as follows: Chill, followed by fever and paralysis second day of the lower limbs; reuained paralyzed, died on the fourth day.

Case No. 10. Female infant child, same house; was taken on the same day of my visit with fever, very nervous, followed by paralysis and died completely paralyzed on the fourth day; these two children lived in the same household and were the only children that the parents had.

Case No. 11. Colored, male, age 2 years; chill followed by fever of very severe type, comatose condition for three days, completely paralyzed; died on April 11.

Case No. 12. Same family, female, age 3; had fever, very nervous, was taken ill April 5, died completely paralyzed April 16.

Case No. 13. Colored, female, age 3 years; was taken ill April 12, fever, very nervous, muscles of the tongue and throat became paralyzed, died on April 14.

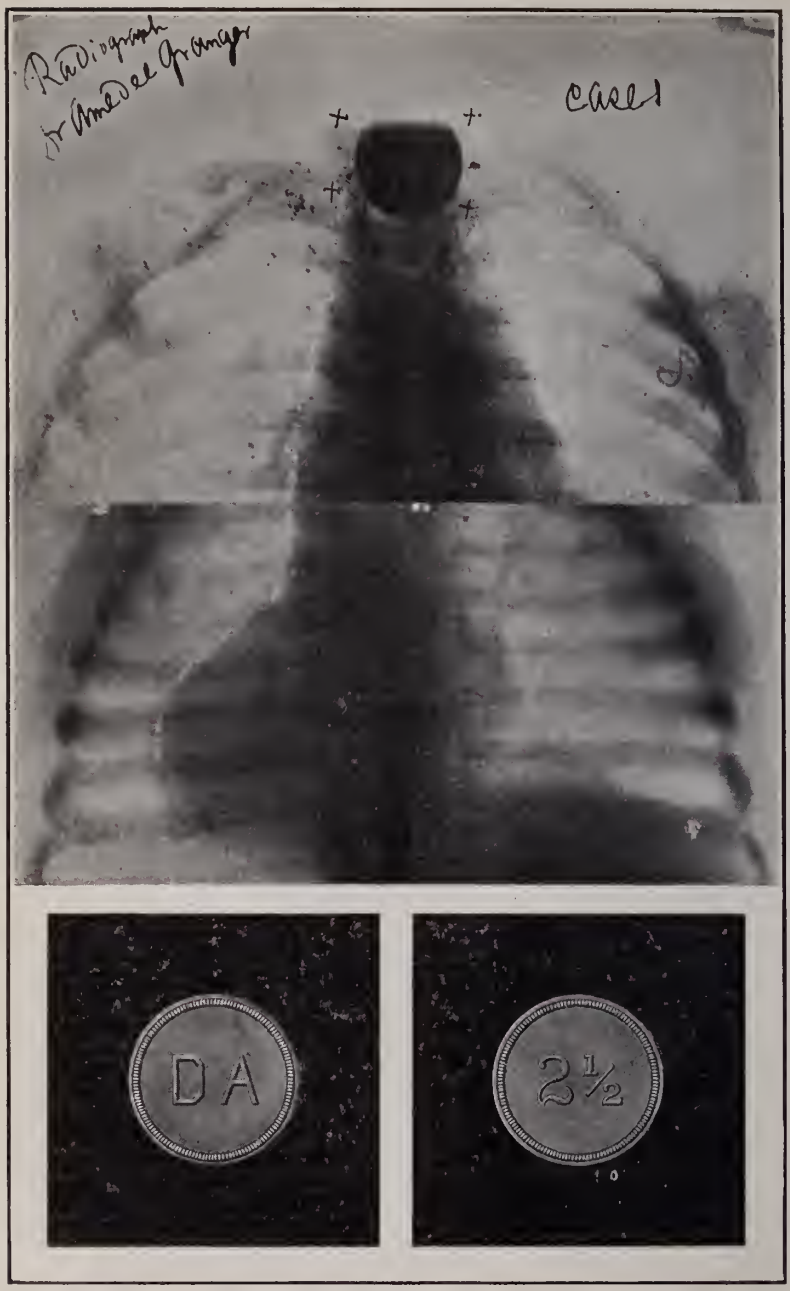
Case No. 14. Colored, female, age 5 years, lived about one mile from three last cases mentioned. A negro woman from this plantation had visited these sick children and on returning home had come in contact with this child, who developed infantile paralysis eight days afterwards. This child had about the same symptoms as heretofore mentioned, fever, followed by paralysis of the lower limbs, in the course of a month had recovered to such an extent that it could walk fairly well, and has been improving gradually since.

Case No. 15. Colored, female, age ten months; was taken on May 4, vomiting, fever lasting three or four days, after which marked paralysis with muscular atrophy of lower extremities, upper extremities less than lower; is gradually improving.

Case No. 16. Was brother of Case 15, age 4; was taken ill May 1, chill, followed by fever, slight paralysis and atrophy; is improved and can walk at this time.

Case No. 17. White, male, age 5; was taken ill during May, fever lasting a few days, followed by paralysis in one leg and one arm on opposite sides of the body; has improved and has very good use of his limbs at the present.

The last six cases mentioned were on the Bonne Idee, about seven miles northeast from Mer Rouge. There have been eight cases in



Upper—Case I.
Middle—Case II.
Lower—Check found in esophagus.
ILLUSTRATING DR. DUPUY'S ARTICLE.

that particular locality; five deaths had occurred before I was notified. I put these cases that were sick under strict quarantine, and also isolated those that had been exposed. We have not had in that locality any more cases since that time. As before stated, we have had about 60 cases of infantile paralysis in the parish, about 52 of these being colored, 14 deaths among the colored and one among the whites, making about one-fourth of the cases that died with the disease. Suffice it to say, with few exceptions, these children in nearly all respects had the same symptoms and the general behavior of the disease was the same.

CONCLUSION.—It is a communicable disease; that being the case strict quarantine and isolation does a great deal of good; the period of incubation is from three to eight days; that the carriers of the disease are those visiting the sick; that I believe the disease can be prevented if preventative measurs are taken in time; that up to this time we have not a satisfactory treatment to offer; that it does not attack children over 12 years of age, as nearly all of our cases were from 2 to 6 years old, and that it prevails and spreads more rapidly during the warm, dusty weather. Most of our cases occurred in April, May and June. I could recite numerous cases, but the history of these cases is so imperfect that I do not think it of interest to report them.

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1. Foreign Body in the Eosophagus Removed by Eosophagoscopy; 2. Foreign Body in Broncial Tract.*

By HOMER DUPUY, M. D., New Orleans, La.

In the light of the more recent advances in esophagoscopy, to blindly search for foreign bodies in the esophagus with variously-devised instruments is no longer justifiable, except in a great emergency. While success sometimes attends such crude efforts, oftener the foreign body is forced down into the stomach to do perhaps further damage. Not infrequently these attempts at removal lead to penetration of the esophagus by the foreign body or by the instruments themselves; serious, if not fatal, results may follow such an accident.

Esophagoscopy reduces the possibility of such accidents and offers an illumined pathway for deliberate, accurate, safe and suc-

* Read before the Orleans Parish Medical Society, February 10, 1913.

cessful examination of the esophagus. There is every prospect of extracting a foreign body from this tract through a properly-conducted esophagoscopy.

Some five or six years ago I began to practice endoscopic methods in the search for and extraction of foreign bodies from the lower respiratory tract and the esophagus. In 1908, at the Hotel Dieu, assisted by Dr. C. G. Cole, I removed from the left bronchus, by a specially devised bronchoscope for lower bronchoscopy part of a laryngeal canula which had detached itself from the collar of the canula. The patient presented a laryngeal cancer and was wearing a tracheal canula for the relief of the stenosis. But not until my work had received the support of the X-Ray findings could I hope to be seriously considered. A mere recital of cases, without the "delivery of the goods," as it were, and without the radiographic data, is certainly neither scientific nor convincing. Some importance naturally attaches itself to this report, as we believe it the first recorded instance in our State of the successful application of the X-ray in the search for a foreign body in the esophagus, which was followed by a successful application of esophagascopy in the removal of the foreign body.

Case 1. L. Cusimano, white female, aged 4. Swallowed a brass check (a "quartee," 2 1-2 cents), in diameter approximating the size of a quarter-dollar piece. This occurred Jan. 22, 1913. There was inability to take solids, and there was some pain in taking liquids. An X-ray by Dr. Amedee Granger gave well-defined radiographic information, both as to the position of the check and as to its anatomical point of location. Jan. 25, 1913, fifty-five hours after the check had been swallowed, at the Hotel Dieu, assisted by Drs. De Poorter, C. A. Weiss, Larose and W. T. Richards, the foreign body was located by the esophagoscope exactly at the point indicated by the radiograph. It was readily removed and no untoward results followed.

Case No. 2. John Scott, 15 months, brought to Charity Hospital January 26, 1913, with marked dyspnea. After some manipulations by the interns the breathing improved. Dr. DePoorter and myself saw the patient Jan. 27. The history indicated the child had either inspired or swallowed a foreign body. There was some dyspnea on exertion and rales over the chest. No dysphonia, no dysphagia. A radiogram showed a foreign body to the right side of the median line, corresponding to the attachments of the third and fourth ribs. Dr. Granger could not give a positive opinion as to whether the foreign body was in the esophagus or in the bronchial tract. It was determined to first search the esophagus, but at the first whiff of the ether the breathing became so alarming and so indicative of stenosis of lower respiratory origin that Assistant House Surgeon Stafford and myself agreed on the necessity of an immediate tracheotomy. Tracheobronchoscopy seemed to show a foreign body in the right bronchus below the bifurcation. Profuse bronchorea and the diminutive size of the parts made endoscopy a most difficult procedure. There was a freqeunt change of tubes and violent coughing accompanied the removal and the reintroduc-

tion of the tubes. I finally abandoned the attempt to remove the foreign body by this procedure. The child developed broncho pneumonia and died on Jan. 29. A post mortem conducted by Assistant House Surgeon Cole failed to reveal any foreign body either in the respiratory tract or in the gastrointestinal tract. The clinical features presented by his case, the sudden dyspnea at the time when the foreign body was swallowed, the marked dyspnea on the operating table, the radiographic data, point out unmistakably that we were actually dealing with a foreign body. Why it was not found at the post mortem admits of only one explanation. During the endoscopic procedures, when tubes were being introduced and removed, the foreign body suddenly left is place of lodgment, passing upward into the trachea into the larynx, and was swallowed. The stools were not watched, but the foreign body evidently passed through the natural channels. The father of the child gave assurance that the foreign body was a brass collar button, and the outlines of the radiograph confirm this statement.

Insurmountable difficulties seemed to surround this case. It is reported, however, as a failure, and in the nature of things this is sometimes to be expected in a field of work which presents not infrequently supreme difficulties.

The Present Status of Epidemic Cerebro-Spinal-Meningitis in Louisiana.*

By OSCAR DOWLING, M. D., Shreveport, La.

It is twenty-six years since the diplococcus intracellularis was identified as the specific excitant of epidemic cerebro-spinal meningitis. More than two decades have passed since the lumbar puncture method was introduced. The conclusions made possible by this means have established many facts, the most significant being the relationship of the meningococcus to the epidemic type of meningitis. Though there has been advancement, yet only partial data for control of the disease is at hand.

Prophylactic measures grow from exact knowledge. In the case of cerebrospinal meningitis proof is clear as to the specific organism and its viability. The habitat of the germ in certain portions of the body of those affected is also known and, inferentially, the mode of infection seems certain.

Relative to the distribution of the germ in the body, Dr. David Bovaird, Jr., of New York, says: "The meningococcus has been found not only in the cerebrospinal fluid of those suffering from the disease, but in the conjunctiva and the eye, in the nose and throat, in the pleura and lungs, in the pus of joints, in the throat, and in the blood." Quoting Jakobitz, he further asserts: "The meningococcus may be found in the lungs both in those suffering

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from cerebrospinal meningitis, with or without definite pulmonary complications, and in rare instances in pneumonias and bronchial catarrhs occurring independently of meningitis." Continuing, Dr. Bovaird says: "The greatest interest and importance, however, attach to the presence of the meningococcus in the nose and throat, because its presence in these passages may not only be a ready means of disseminating the organism outside the body of the patient, but also suggests the possibility of direct infection of the meninges from its source."

As results of experiments are recorded it becomes more apparent that the nasopharyngeal secretions of the patients are charged with the germ. Goodwin and von Scholly (*Journal Infectious Diseases,* 1900) obtained positive results from the nasal mucus of 27 out of 52 during the initial period of the disease—first two weeks—and von Linglesheim (*Klin. Jahrb.,* 1906, xv, 400) under favorable conditions gives a report of 46 positive in 49 examinations. The conclusions of these and others are that the organism probably is present in the nose or nasopharynx of a majority of the cases of epidemic meningitis in the early stages of the disease.

Investigations show also that among many contacts and even among those who have no knowledge of exposure the organism exists in the nose or nasopharynx. The figures given by some of the authorities (Goodwin and von Scholly, Dieudonne, Fraser and Comrie) are 10 per cent of 45 contacts, 5 positive results in 39 trials, and 10 in 69 trials of "contacts." Among the members of the German army experimental work on a large scale has been done, with interesting results. Out of 400 men 8 and 10 out of 1703 coccus carriers were found, though at this time there was no meningitis in that portion of the army.

Drs. O'Donnell and A. H. Gladden of Monroe, La., in the recent investigation made there found 8 carriers out of 20 examinations among the well telephone operators. One person working in the office had died from the disease. No other had contracted it. Dr. W. A. Evans of Chicago in a recent article says: "Every person in contact with a case of meningitis gets the germ into the nose. Sometimes they are thrown off without causing any effect; sometimes they cause a bad cold, and the germs stay in the nose; sometimes they get into the brain and cause more or less typical meningitis." He quotes Dr. Pflügge, the great Ger-

man authority, as saying there are 20 cases that go no further than colds for every case that goes into meningitis.

It is conceded that the meningococcus under ordinary conditions perishes quickly. From these premises, the presence of the germ in the nasal passages and respiratory tract of those having the disease and many persons in good health, and the exceeding viability of the organism, prophylaxis demands:

Early diagnosis;
Isolation of suspects;
Complete quarantine of those having the disease;
Serum treatment as a preventive;
Supervision of "carriers."

For the control of any transmissible disease education of the laity is fundamental. One feature is to create a sense of responsibility relative to the seemingly trivial maladies. If our German authority is correct, colds may be the result of the meningococcus. Could this be known more widely, the warning to early diagnosis would be more universally heeded.

Isolation of suspects and complete quarantine are elemental in the control of the disease. Partial quarantine is worse than none. It gives rise to irritation, without being effective. Complete quarantine is efficient. Every health officer suspecting a case of this disease should go to the limit of his authority. Half way measures, concessions to the prejudices or opinions of the multitude, are unpardonable in the physician-officer. To quote from a live health executive on this phase: "Wherever a board of health has clamped down hard and used enough machinery to see that orders have been carried out it has ended the epidemic quickly."

In any disease to tolerate a risk of transmission is unpardonable, but when specific knowledge as to conditions of receptivity is lacking, as in meningitis, it becomes even more an obligation to make absolute as far as possible the isolation of patients. To wait until many well people become carriers of the infection is simply to invite the spread of the malady.

In the smaller communities, ironclad regulations enforced make sure the eradication of the disease. In large cities it is not so easily accomplished; perhaps, only a lessening of a number of cases is possible, but even this is worth while.

Quarantine rigidly enforced is the best possible educational agency. It centers the public mind on prevention. When suc-

cessful it becomes positive evidence of the value of measures of control. It offers also opportunity for the dissemination of facts in popular terms. This, too, is important, and becomes particularly effective in towns and small cities.

There are three classes, in the main, who oppose the quarantine officer—those who raise the old cry personal liberty, many skeptical of preventive measures and prejudiced likewise, and a few who honestly believe that quarantine induces a state of panic. This attitude is one of the difficulties met with in every form of health activity. It is trying in the extreme to those in charge, but effective quarantine measures, with accompanying successful results, are the most convincing of all arguments.

During the prevalence of meningitis last winter an effort was made to get complete returns of every case that developed. From 23 parishes, 250 were reported. In 194 cases serum was administered; 119 or 61.3 per cent recovered; 75 or 38.7 per cent died. In the cases where serum was not administered, 56, 14, or 26.8 per cent recovered; 42, or 73.2 per cent, died. Unfortunately, we were unable to get exact records on this point in 398 cases reported from cities of a neighboring State. But our own record gives positive evidence as to the value of serum treatment in the initial stages of the disease.

If experiments were made in the treatment of carriers with serum no reports were sent to our office. But even if we had these records, our knowledge of the condition of development is too limited to permit conclusions.

In relation to spread of infection in families, the returns sent in show that of the families affected in 73.4 per cent, only one case developed. The number of members who were carriers or became so from contact with the patient in the home, we have no means of knowing.

Methods of prevention in this disease do not differ from others of the transmissible type, but with the imperfect data we now have the difficulties are greater.

The evidence at command suggests that the primary infection is respiratory, in most cases nasopharyngeal; and that there are many unaffected carriers. It follows, protection of the community demands isolation of those sick with the epidemic disease and detection of infective persons. Enforcement of the quarantine rules of the State will accomplish the first, but the problem of

the carrier is yet unsolved. In the German army experimental methods of supervision have been applied to a limited degree, with apparent success—that is, examination and isolation of the men who are regarded as potentially sick because carriers. But when we have not yet established in the minds of the laity that quarantine of the sick is imperative and so long as there is lacking a responsibility on the part of the public, we are not likely to be able to enforce isolation or even periodical examination of well persons who carry the infection. Dr. Bovaird says: "Douches and insufflations have been tried without success. In this regard the experience seems to repeat that with diphtheritic infections of the throat. In time the infection appears to die out in most cases, but treatment does not hasten that desired end.

"Our present knowledge would suggest the desirability of treating these persons by serum or vaccines. The possibility of protecting the exposed by like means naturally presents itself, but thus far I have not been able to learn of any work along these lines."

The conclusion which appeals most strongly is the obligation to get a history in detail of every case brought to our notice, the possible source of infection being the most important feature. If the condition peculiar to the development of the infection could be cleared up there would be a working basis for the control of carriers.

CEREBRO-SPINAL MENINGITIS.

Impossible to check accurately as physicians reporting cases do not confirm cases reported by rumor, nor in their summaries do they specify whether former partial summaries are included.

Parish.	Post Office.	No. Cases.	No. Deaths.
Allen.	Oakdale.	1 (unconfirmed)	
	Reeves (came to New Orleans.	2	
Caddo.	Oil City (came to New Orleans)	1	
Caldwell.	Fifteen miles from Columbia		1
Claiborne.	Athens.	1 (suspicious) (unconfirmed)	
De Soto	Grand Cane	6	3
	Keatchie.	1	
East Baton Rouge.	Baton Rouge (came to New Orleans	1	
Jackson.	Chatham.	1 (suspicious) (unconfirmed)	
Iberia.	Jeanerette.	1 (suspicious)	
Iberville.	Near Plaquemine	1	
Madison.	Tallulah.	1	
	Duckport.	2	

Parish.	Post Office.	No. Cases.	No. Deaths.
Morehouse.	Mer Rouge	4	2
Natchitoches.	Creston.	1	
	Campti.	2	1
	Bermuda.	1	
Ouachita.	Monroe.	48	22
Pointe Coupee	Livonia.	1 (unconfirmed)	
	New Roads	7	1
Rapides.	Alexandria.	2	
Richland.	Near Delhi	1 (unconfirmed)	
	Rayville.	4	
Sabine.	Hatcher.	1	1
St. James	Near Timberton	4	4
St. Landry	Palmetto.	8	
Tensas.	St. Joseph	4	
Vernon.	Stables.	8	
	Pickering.	1	
	Neame.	3	1
	Near Anacoco	1	1
	West Side of parish.	2	2
West Baton Rouge.	Port Allen	1 (unconfirmed)	
	Morley (came to New Orleans		
West Carroll	Pioneer.	1	
24 Parishes		124	38
Orleans.		19	16
Totals.		143	54

Dr. Seemann's report for December shows examination of 12 specimens of spinal fluid, as follows:

Rapides	1
Ouachita	8
De Soto	1
Calcasieu	2

Dr. Seemann's report for January shows 18 examinations, as fololws:

Rapides	2
Richland	2
Jefferson	1
Vernon	1
Morehouse	5
De Soto	2
Ouachita	2
Calcasieu	1
Pointe Coupee	1
West Carroll	1

Dr. Bodenheimer reports the examination of six specimens.

Complaints received from city health officer, New Orleans, about following cases coming to Charity Hospital, New Orleans, from other parishes:

Morley	1
Oil City	1
Reeves	2
Baton Rouge	1
Monroe	1
Total cases	6

The Laboratory Diagnosis of Cerebro-Spinal Meningitis.*

By C. C. BASS, M. D., New Orleans, La.

It is intended in this short paper to discuss the practical laboratory diagnosis of cerebro-spinal meningitis, but not the cultural differentiation of the etiological organisms.

Whenever clinical evidence of meningitis is present a leucocyte count often throws light upon the diagnosis. Tubercular, typhoid and influenzal meningitis give rise to very moderate or no leucocytosis. The count often does not exceed ten or twelve thousand. There is no increase of neutrophiles. Meningitis due to either pneumococci or meningococci produces high leucocytosis. The count often exceeds 30,000. In addition to the total increase, there is always a great increase of the percentage of neutrophiles, accompanied by decrease, or often absence, of eosinophiles. The neutrophile percentage may go as high as 90 or 95 per cent. This is in striking contrast with the normal, or sometimes subnormal, neutrophile count in tubercular, typhoid or influenzal meningitis. The lecocyte count may, therefore, be of some value in the diagnosis and differential diagnosis of meningitis.

The laboratory test of most value is examination of the spinal fluid obtained by lumbar puncture. A description of the technic of this little operation is beyond the scope of this paper, but suffice it to say that it is extremely simple, and, with reasonable care, is absolutely harmless. The needle should be sterile, and infection of the outlet avoided by touching it only with sterile hands and sterile gauze. The fluid for microscpoic examination should be

* Read before the Orleans Parish Medical Society, February 10, 1913.

collected in a clear, preferably a sterile, tube or bottle. If cultures are to be made it is preferable to allow a few drops of the fluid to drop from the needle into an ordinary blood serum culture tube. The diphtheria culture tube, such as is supplied by the Board of Health for throat cultures, is excellent for this purpose.

Cultures of the fluid may be made later, however, in the event that they are not made at the time the lumbar puncture is made.

The turbidity of the fluid often strongly suggests the kind of meningitis present. In tubercular, and in a less degree in typhoid and influenzal meningitis, the fluid is generally pretty clear. In pneumococcus and meningococcus meningitis the fluid is generally quite cloudy. The varies from a slight cloud, in rare instances, to a fluid almost too thick with pus-cells to flow through the needle.

After spinal fluid, either normal or from tubercular meningitis, stands in a tube for a short time, fibrin forms. This later soon contracts to form a pellicle, which floats in the fluid. If tubercle bacilli are present they are caught in the meshes of the fibrin, and are much more likely to be formed here than in the sediment which collects, or can be collected, in the bottom of the tube by centrifugalization. The pellicle is "fished" out, spread on a slide and stained in the usual way for tubercle bacilli. They are not usually present in large numbers; therefore, a thorough search must be made. If tubercle bacilli are not found, and the exigencies of the particular case require it, a further test may be made by injecting a guinea-pig with some of the material. Within about three weeks the animal develops demonstrable tuberculosis, if tubercle bacilli were present, and the diagnosis is then made.

To examine for all other organisms, the pus and bacteria are first collected by centrifugalization. In many instances, where the pus is very thick or the organisms are present in large numbers, it may be sufficient to examine a smear made directly from the fluid. In either case a smear is made on a microscope slide, stained and examined. Any good stain for pus and bacteria will serve the purpose. Perhaps the best is carbol-fuschin, followed by Loeffler's methylene blue. I have never seen any other staining method that gives as good differential staining of pus and bacteria as this one when properly applied. Gram's stain may be used to further differentiate pneumococci from meningococci, but it does not show up the morphology of the bacteria nearly so well, and therefore is not to be employed exclusively.

Meningococci are diplococci, biscuit-shape, usually intracellular and Gram negative. They may be quite numerous, but often are present in small numbers. Thorough search may be necessary, and sometimes meningococci are not found in true meningococcus meningitis.

Pneumococci are diplococci, lanceolate-shaped, intra- and extracellular and Gram positive. They are usually very numerous. One field may contain hundreds.

Typhoid bacilli are motile, intra- (seldom) and extra-cellular bacilli, and Gram negative. Usually they are very numerous. They are agglutinated by specific typhoid serum, and the patient's blood gives a positive Widal reaction.

Influenza bacilli are very small, Gram negative and non-motile.

Compound fractures may give rise to meningitis due to various other bacteria.

In conclusion, it should be said that the laboratory diagnosis of cerebro-spinal meningitis is simple, facile and practically certain. Clinical evidence of meningitis demands a lumbar puncture for diagnostic purposes.

Clinical Reports.

Fracture of the Acetabulum. Report of Case.

By URBAN MAES, M. D., New Orleans, La.

At the Montreal meeting of the American Surgical Association (May, 1912), Dr. George Tully Vaughn read a paper on "Central Dislocations of the Femur," in which he collected cases to date under two heads: The clear cases and those in which the diagnosis was doubtful. The one which I have to record comes under the latter class, as there is no record of the dislocation, although the patient was told by his physician that a dislocation with deformity did exist, and an X-ray picture taken after reduction had taken place would tend to confirm this belief.

The fololwing case history and accompanying skiagraphs are from the service of Prof. R. Matas at the Charity Hospital:

J. R. White male. Sawmill laborer. Admitted to the Surgical Division Oct. 11, 1912, with an accident room diagnosis of contusion of the hip. When the patient first came under my observation he was suffering some pain in the region of the hip joint, and large ecchymotic spots were to be seen about the upper third of the thigh. He described his injury as

having been inflicted while cutting down trees. A falling tree struck him on the shoulder, and in falling he struck his left hip. He does not remember any more details of the injury. He was unconscious for several minutes and on recovery was unable to move on account of great pain and rigidity of thigh and leg. The toes of the injured limb rested on the instep of the sound foot. Attending physician took the injury to be a dislocation and several ineffectual attempts at reduction were made under anesthesia. Realizing that reduction had not been accomplished, patient was sent to the hospital for further treatment.

The admitting officer, without an X-ray examination, thought the position typical of dislocation on to the dorsum of the ilium. Reduction under anesthesia was again attempted and, after failure, patient was sent to the ward, with a Buck's extension apparatus applied.

When I first saw the patient on Oct. 15, there was still great pain, and failing to recognize any abnormality by the classical measurements, I had the accompanying X-ray picture made, which revealed the true nature of the injury. The extension was continued about two weeks. At this time all pain had disappeared and a second picture showed union of the fragments. Efforts to induce the patient to remain in the hospital for further observation were of no avail, and he left the institution four weeks from the date of injury walking on crutches. All motions of joint were normally present.

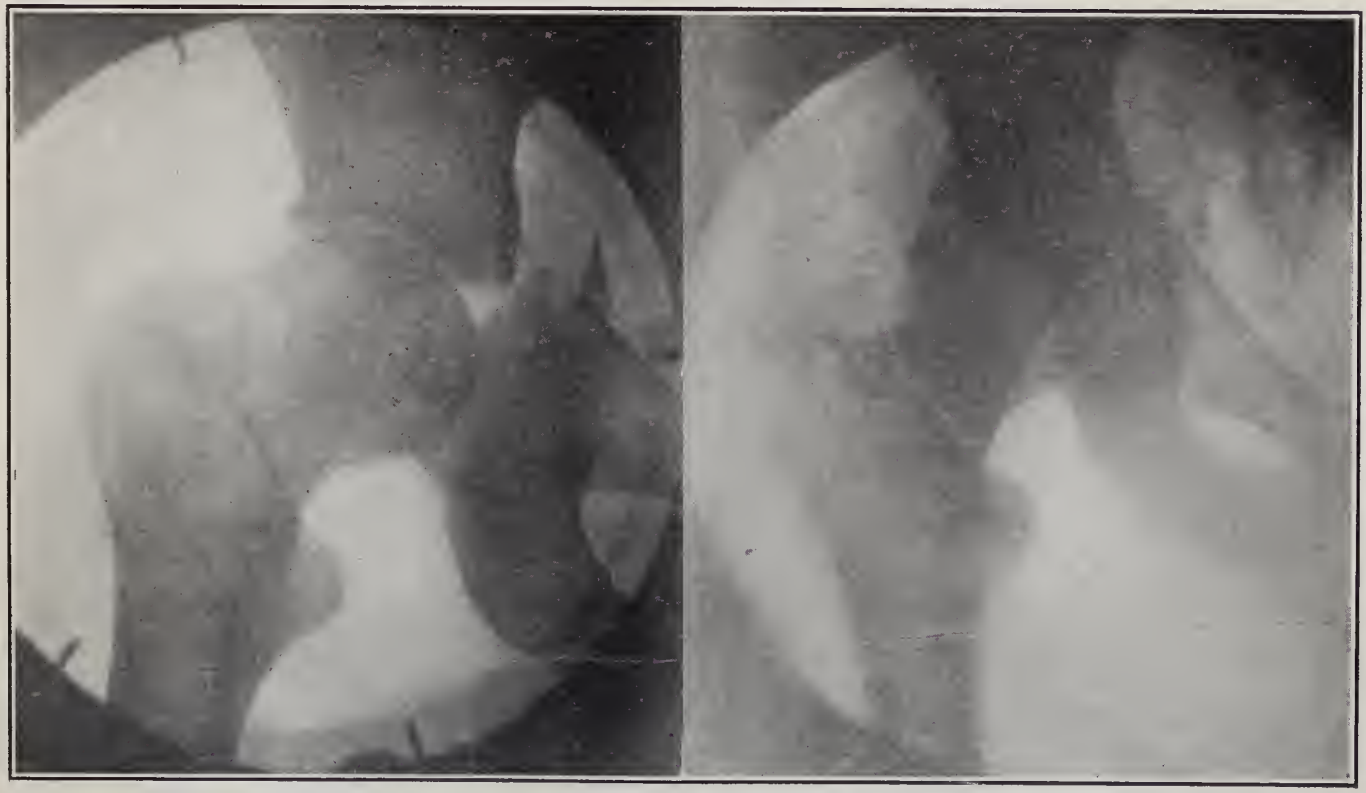
Since no operative or X-ray diagnosis was made, this case must be put into Vaughn's list of doubtful cases. However, from the account of the patient and the observations of two competent men who saw the man shortly after his injury, the central dislocation of the femur must be strongly suspected.

The accompanying skiagraphs, one taken on the fourth day after the accident, and the other taken three weeks later, show the lines of fracture and the result.

Peanut Autointoxication. Report of a Case.

By C. W. SMITH, M. D., Oak Grove, La.

I was called at 3 o'clock a. m. on Dec. 11, 1912, to see a man, age 41, weight 205 pounds, previous health good. Patient retired that night feeling well, took sick about 9 o'clock. On my arrival I found him with a temperature of 100 1-2, circulation 120 and very strong. He was bathed in perspiration, even the mattress and comfort were wet. He could not use his lower ex-



Fracture of Acetabulum,
Four days after injury.

Fracture of Acetabulum,
Three weeks after injury.

ILLUSTRATING DR. MAES' ARTICLE.

tremities and said he felt numb all over and was having slight convulsions every few minutes. Bowels had not acted since the 9th.

I went over the case thoroughly, but could not make a diagnosis. I administered a dose of bromid compound and took a seat to await results and study the case. While waiting I asked the patient's brother-in-law several questions concerning the case and one of them was: "Has the patient eaten any peanuts?" and his answer was that he ate peanuts on the 9th. I was glad, indeed, to get the answer. I had about decided that I was up a tree.

Treatment: I administered four dessert spoonfuls of Epsom salts in warm water and continued the bromid compound when there were indications of convulsions. The salts did not act within a reasonable time; the dose was repeated and the bowels irrigated, which started an outpour of undigested peanuts. It seemed to me that the man passed more peanuts than an ordinary family could have eaten. The patient was relieved within thirty minutes after the bowels acted. I then prescribed 10 grains of calomel, divided in three doses, to be given one every two hours, also prescribed a tonic and instructed the patient to be careful about eating peanuts.

Conservatism in Surgery.

By A. L. LEVIN, M. D., Harvey, La.

One of the points strongly emphasized by Dr. Rudolph Matas in one of his lectures on tissue necrosis, discussing amputations as the result of various accidents, appealing to his class of 1907, Medical Department Tulane University, to do conservative surgery, save as much as possible of the injured limb with safety and comfort to the patient, was recently made clear to me by one of my patients, who demonstrated to me that he knew better than our textbooks. The interesting feature in this case lies in the fact that the great issue of conservatism in surgery was forced upon me by the patient, who disregarded the advice of the best surgical talent of this city. The case is as follows:

M. L. R., male, age 23, Spaniard, railroad clerk in the office of Swift & Co. On May 1, 1912, while returning home from work, the road was blocked by a freight train. Wishing to cross before the train cleared the road, he jumped on the couplings between the two cars, in order to reach the other side. At that moment the train started and the patient's right

foot slipped between the couplings and was so badly crushed that the lacerated tissue and crushed phalanges could only with difficulty be released from the torn shoe. On examination I found the tissue on dorsal surface up to tarsal bones badly lacerated, heads of metatarsal bones exposed, toes crushed, plantar surface for about two inches, tissue lacerated and ecchymotic. The best plan of treatment seemed to be amputation above ankle, but the idea of conservatism appealed to me at that moment. I disarticulated the toes except the great toe. I left a part of the first phalanx attached to the head of the metatarsal, ligated bleeding vessels, stitched up the tendons, trimmed off the torn edges and closed the wound by stitches. 1500 C. C. anti-tetanic serum were injected and the patient was sent to the ward. Twelve hours later his temperature began to rise and by the end of twenty-four hours his temperature reached 104 degrees. I removed the dressing. The foot up to the ankle assumed a gangrenous appearance. I removed the stitches, made three incisions, provided sufficient drainage and ordered foot to be soaked in 1-2 per cent warm lysol. Temperature began to subside; by the end of forty-eight hours his temperature was normal. The tissue up to the tarsal bones began to slough, the heads of the metatarsal bones became visible, and the whole picture was a horrible sight to behold. At that time I called in Dr. H. B. Gessner to ask his advice whether grafting could be done in that case. He considered then grafting possible if the plantar surface would remain intact. We continued the use of the lysol solution until a line of demarcation developed. The plantar surface up to about the middle died also on the battle field, and I removed it as I did the dorsal surface. We had then a very ugly stump with tips of bones uncovered. Dr. Gessner then could find no other plan than to amputate the foot above angle. Dr. Thibaut, who saw the case for the railroad interests, was of the same opinion, viz.: to amputate. In his presence I related the case to Dr. Denegre Martin and amputation was the only solution of the problem, and in his opinion the middle third of the leg would give the best stump. We explained the case to the patient and to our repeated pleas he turned a deaf ear.

He begged me to continue dressing his foot, with the hope that it would grow, and it really did grow. I dressed the foot for three months, trimming and cauterizing exhuberant granulations until finally Aug. 1, 1912, I discharged the patient well. The stump was covered by fibrous tissue so smoothly, both on plantar and dorsal surfaces, that it looked as if it were covered by real skin. He could even move the small portion of the first phalanx of the toe, which I left. I ordered a well padded shoe and a sock well padded with lamb's wool. He is walking well and without the slightest discomfort. The rule that a scar on the plantar surface of the foot is painful did not materialize in this case. I saw the patient several times since, and he inclined to believe that he knows more than our textbooks.

Orleans Parish Medical Society Proceedings.

Meeting of February 10, 1913.

Discussion of Dr. Dupuy's Paper.

Dr. Lynch. I have had about ten or twelve cases of bronchoscopy and esophagoscopy. Last summer I removed a five-cent piece from the esophagus of a two-year-old child, using the Jackson tube. I use the Jackson, Killian or Brunning tube. The Jackson tube is very good, but I like the Brunning best. In another case, a colored child four years old inhaled a watermelon seed, which lodged in the second division of the bronchus. I could see the body through the Jackson tube but could not reach it, so did a tracheotomy and extracted it through a Killian tube.

I have had one fatality. Child, 18 months old, with watermelon seed lodged in right main bronchus. Could not introduce the smallest Jackson tube, so I did a tracheotomy and easily removed the body with the Jackson graded tracheotomy tube. The patient was put to bed. This was about 10 a. m. About 5 p. m. the child was doing fine, and was left with father for about ten minutes. Was dead on return of nurse, cause of death not known. There was no strangling, dyspnea or cyanosis.

My hardest case was the removal of a pin from the esophagus; the pin was stuck in the mucous membrane of the esophagus, with its head toward the mouth. Introduced the tube under cocain and had to search for forty-five minutes. Prompt recovery.

One child seen by me died of pneumonia before anything could be done; a canteloupe seed had lodged in the bronchus. I know of no work requiring more skill or dexterity, and it is, indeed, a specialty in itself.

Discussion of Symposium on Cerebro-Spinal Meningitis.

Dr. Seemann: Dr. Ross' observations are pertinent and in keeping with general experience. The examination of the fresh cerebro-spinal fluid gives better results; in fluid that is somewhat aged the cocci disappear or lose their staining properties.

Ziehl's Carbol-fuchsin (1-10) is the best stain. Loeffler's blood serum is a good medium for meningococci, also Hiss' semi-solid medium. Intubation temperature must be kept at or very near to 37.50 C., as a little variation may kill them. Dr. Van Wart says to give injection every two to four days. Should this be kept up as long as cocci are present? What should we do when patient is improving, but not out of danger? Should we continue the injections and if so for how long? I treated two cases last year with one injection (30c.c) in one case and two in the other, and both recovered. Both cases were treated early. I would like to hear the subject of carriers discussed.

Dr. L. J. Genella: Dr. Van Wart does not give the proper technic for the Kernig sign. The proper way is to flex leg (lower) on thigh, and thigh should then be markedly flexed on abdomen until the psoas muscle is completely relaxed. If the lower leg is now straightened, out a spasmodic contraction of the psoas takes place, if the sign is positive. Shock following any interspinal injection is due to two causes: Respiratory paralysis and cardiac inhibition. The best way to prevent the first is by preliminary injection of atropin and the second by injection of cocain. If cardiac inhibition takes place, it can be easily counteracted by immediate injections of atropin, whereas when shock is due to respiratory paralysis nothing seems to avail. These experiments have been fully described in the Archives on Internal Medicine.

Dr. Asher: How would you differentiate a case of cervical myalgia?

Dr. Bass: Carriers are more numerous than cases of meningitis. They distribute the cocci in large numbers by way of sneezing, coughing, handkerchiefs, etc. Meningococcus carriers have meningococci on their hands almost all the time and distribute them by the usual handshake, as well as in other ways. Many of the exercises in the schools, especially in the kindergartens, constitute a very good means of transmission and should be discontinued.

Regarding anaphylaxis, we can guard against fatal anaphylaxis when giving other sera by injecting the serum into an extremity and stopping or prolonging absorption by constriction, if alarming symptoms arise. I wish to emphasize Dr. Van Wart's suggestion to withdraw the serum by lumbar puncture, should dan-

ger signals occur, and add that early sign of anaphylaxis is urticaria. Withdrawal of the serum may save the patient.

Dr. Parham: Dr. Bass has often told me that the fluid should be promptly examined, as the organism is hard to find, since it so quickly disappears after being drawn from spinal canal. If so, why such danger in a handshake?

Dr. Bass (in reply to Dr. Parham's question): Cerebro-spinal fluid is bacteriolytic; besides this, the leukocytes rapidly digest the cocci. The nasal fluid is not so destructive to the cocci. In fact, it serves as culture media for them. If spread on the hand and allowed to dry they would die. But from one moist hand to another and thence to the nose is often too quick for drying to occur.

Dr. Eustis: I would ask Dr. Van Wart how soon choked disc appears, and what per cent of cases have no eye changes?

Dr. Van Wart (in closing): Dr. Seemann is fortunate to have cured his cases so quickly. I have failed in some cases with ten or fifteen injections. The best method is to give until the patient improves. The amount required is less in early cases than in those seen late.

In regard to Kernig's sign, the technic I described is the one used by Kernig himself. He described it in the *Monatschrift für Psychiatrie und Neurologie* about eighteen months ago. The technic described by Dr. Genella is not approved by Kernig. It is not a pathognomonic sign of meningitis, but is found in many other conditions. The eye phenomena are not found in recent cases, but occur in 20 to 25 per cent of old cases. There may be merely a filling of the veins in the fundus, or we may have ocular paralysis.

We differentiate from cervical myalgia by lumbar puncture, which should be done in all suspected cases, and where there is any doubt as to the diagnosis.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

The Charity Hospital Investigation.

The report on the investigation of the New Orleans Charity Hospital, promulgated by the Board of Administrators, has appeared in a neatly-printed booklet. Dr. Goldwater has carefully covered all of the detail of the hospital, and has spared no phase in its activities or its administration. Summed up, the report condemns the intern system, including the house staff, and recommends a medical superintendent and a reorganization of the resident intern staff. The visiting staff is found neglectful, and at the same time irresponsible, through lack of facilities. The economic side of the hospital is criticized as archaic in method, while the domestic relations of the Sisters of Charity are highly praised and their valuable services eulogized. A general revision of bookkeeping methods seemed desirable, and much more attention to the nursing and medical services needed.

The Board of Administrators have begun to act on the report by revising the pathological service and by giving the house surgeons notice that a medical superintendent would be appointed as soon as one could be found. The house staff were requested to hold office *pro tempore et ad interim*.

The daily press, for the most part, has received the report of the expert with fair consideration. One of the morning papers of New Orleans has continued to discuss the report as superogatory and inspired by local medical interests, even encouraging the idea that the poor were about to be sacrificed by the projected improvements for their benefit at the hospital.

The investigation of the hospital began through the efforts of the Louisiana State Medical Society a year ago, after the appeal of the local visiting staff had failed to get a hearing from the old Board of Administrators. The resolutions of the State Society, addressed to the Governor of the State, were supplemented by the practically

unanimous endorsement, through similar resolutions, of the Charity Hospital Alumni Association, the Orleans Parish Medical Society and the visiting staff of the hospital. It might be called a unanimous demand of the medical profession of the State calling for an investigation of the hospital with a view to bringing its efficiency for service to the poor up to a standard commonly recognized as necessary in all institutions of the size and importance of the Charity Hospital.

The present Board of Administrators is constituted of representative citizens of New Orleans, and their purposes are evident in the care exercised in analyzing the status of the hospital before reform has been undertaken. There can be no question of the one fact that, when the new administration is well under way, all departments of the hospital will have to work according to rules, and no haphazard intern service, admission system or nursing will be allowed; and the members of the visiting staff, which has been most concerned and most active in the reform movement, must look after their own services, for the burden of offense may be laid at their own doors for neglect of duty!

President Robert Sharp, of Tulane.

Robert Sharp, A. M., Ph. D., has been elected President of Tulane University. For the past year he has been the acting President, and in that time he has brought together the various active and alumni interests to the extent that, before the Board of Administrators of Tulane had determined to elect him, he had won the unanimous voice of the combined wishes of all Tulanians, including the various faculties.

The influence of Dr. Sharp has been felt at Tulane for the entire thirty-odd years of his service. By his example, and precept, too, he has molded the character of the students who have met with his academic teaching, and in his faculty relations he has leavened the spirits of contrariety which must exist in any considerable group of men. He has for long been the real "doyen" of the Tulane Faculty, and it is only natural that in this time of the rejuvenation of the South we should find the leader of a great university in the person of one who has always lived among the ideals of education; acquiring that fund of wisdom, through years of service, which must

make for a greater, because broader and more beautiful, institution of learning.

The JOURNAL congratulates the university in its recognition of Robert Sharp.

Polyclinic Anniversary.

A notable event in medical educational circles was the celebration of the twenty-fifth anniversary of the opening of the New Orleans Polyclinic, now the Post-Graduate Medical School of Tulane University.

The faculty held an informal reunion at its building on Tulane avenue on the evening of April 7, to which were invited the faculty of the Medical School, the Board of Administrators of the University, of the Charity Hospital, of the Eye, Ear, Nose and Throat Hospital, the members of the Orleans Parish Medical Society, and the matriculates of the Polyclinic. The amphitheatre was comfortably filled by the guests, who seemed to enjoy the exercises, which closed with refreshments.

The Dean, Dr. Chassaignac, gave a brief history of the Polyclinic from its opening session in 1888, its absorption by Tulane University in 1906, up to the present year, when it becomes the Post-Graduate Medical School in the Medical College of the University. It was noted that the number of professors and branches had increased from 10 to 20; matriculates, from 23 to 213, total up to date being 2,605; from only the Gulf States to 36 States, District of Columbia and several foreign countries. Personal references were made to those who had played the most important part in the development of the school, and more particularly to its first president, the late Dr. Jno. H. Bemiss.

Dr. Robert Sharp, president of the University, spoke of the good work accomplished by the school and his satisfaction at its annexation by the University, and especially of the recent consolidation of the two medical departments.

Dr. F. W. Parham, the senior medical member of the Board of the University and one of the founders of the Polyclinic, spoke of his past association with the school, of the part he contributed to the reorganization of the Medical Department and his expectations for its future.

Dr. H. D. Bruns, also an organizer and now an emeritus pro-

fessor, spoke of the spirit which fostered the organization of the school, and delivered a most eloquent tribute to one of the departed members, one of its strongest men—Dr. P. E. Archinard.

Dr. Dyer, Dean of the Medical School, referred to his part in the development of the Polyclinic while he was secretary for several years, and gave some interesting historic details.

Dr. Rudolph Matas read an elaborate paper on the influence of H. D. Schmidt, late pathologist of the Charity Hospital, on the medical minds of several who formed a nucleus from which sprang the Polyclinic, and among whom was included Dr. Matas himself.

The occasion was observed in an entirely informal manner, yet filled acceptably its function of marking an important milestone in the career of a medical institution which has ever stood for progress and has contributed a liberal share of ideas and labor towards making New Orleans a real medical center.

The Baton Rouge Meeting of the State Society.

On April 22, 23 and 24 the Louisiana State Medical Society met at Baton Rouge, with an attendance of nearly two hundred members. The interest in the meeting was sustained throughout, and was concluded with a banquet at the Istrouma Hotel, at which the greatest enthusiasm prevailed, as it was particularly keyed up by the presence of Governor Hall, who, among others, delivered a post-prandial address which will be remembered long by those present, as it touched upon the vital relation of the State to medical practice and to the objects of State medicine.

A large number of papers were presented at the several sessions, and of a high order. The guest of the Society, Dr. T. B. Futcher, of Baltimore, gave a much-appreciated discussion of "Eugenics in Its Relationship to the Welfare of the Public."

The President's address was filled with the Society's obligations to State medicine, and Dr. Ledbetter dwelt upon the opportunities for further effort in this direction. State medicine was the motif of the whole meeting, though the surgical and technical papers were numerous and able.

Excursions to the oil plant near Baton Rouge and to the various institutions in the city were arranged during the meeting as part of the entertainment. About twenty members visited the East Louisiana Hospital for the Insane, at Jackson, and the impressions

of the modern methods employed are noteworthy. But for the number of inmates unable to engage in such occupations, the casual observer might believe that he had met the various indications of an industrial school, for in the shops and on the farm the inmates were busy in all sorts of energies.

The reception in the afternoon of the second day at the residence of Mrs. and Dr. McVea brought the social element of the Society together with the beauty of Baton Rouge, and in a most enjoyable way.

Altogether, the meeting was a success, and the local Society of East Baton Rouge Parish is to be congratulated upon the care in detail with which the meeting was carried out. The next meeting will be held in New Orleans.

The following officers were elected:

President, Dr. Fred J. Mayer, of Opelousas; first vice-president, Dr. A. J. Perkins, of Lake Charles; second vice-president, Dr. A. H. Gladden, of Monroe; third vice-president, Dr. W. S. Rutledge, of Ruston; secretary, Dr. L. R. DeBuys, of New Orleans; assistant secretary, Mr. George Augustin, of New Orleans; treasurer, Dr. E. W. Mahler, of New Orleans.

Councilors: First Congressional District, Dr. H. B. Gessner, of New Orleans; Second Congressional District, Dr. W. H. Seeman, of New Orleans; Third Congressional District, Dr. L. J. Menville, of Houma; Fourth Congressional District, Dr. T. J. McAnn, of Atkins; Fifth Congressional District, Dr. R. W. Faulk, of Monroe; Sixth Congressional District, Dr. J. W. Lea, of Jackson; Seventh Congressional District, Dr. J. N. Adams, of Eunice; Eighth Congressional District, Dr. E. L. Henry, of Lecompte.

House of Delegates: Chairman, Dr. Seeman; secretary, Dr. DeBuys.

Delegate to American Medical Association, Dr. Oscar Dowling, of Shreveport; alternate, Dr. George S. Bel, of New Orleans.

Recommended for member State Board of Medical Examiners: Dr. J. G. Martin, of Lake Charles, and Dr. W. G. Owen, of White Castle, one of whom is to be appointed by the Governor.

Louisiana State Medical Society Notes.

In Charge of Dr. L. R. DeBuys, Secretary, New Orleans.

Parish Society Meetings.

Resolutions of the East Baton Rouge Medical Society on the Death of Dr. Thomas S. Jones.

Whereas, the hand of Providence has removed from among us the dean of the medical fraternity of East Baton Rouge, Dr. Thomas S. Jones; and

Whereas, since each and every member of this society entered here into our chosen field of endeavor, this Nestor of the profession has stood before us ever as an admirable example of all of the best that we humbly strive for; in the period of his ripe manhood practicing with skill and zeal and success his chosen science, and in the years of his old age continuing, with understanding and sympathy, to practice the highest humanitarian virtues that our profession can inculcate; "respected by all men at all times," and observing in his every act the ancient physician's oath: "With purity and with holiness I will pass my life and practice my art," and

Whereas, at a time when "full of years and honors," as "one who never turned his back, but marched breast forward," he still remained upright under his burdens, and clear of vision and with an outlook calm and serene, it has nevertheless pleased the Divine Will to summon him; therefore,

Be It Resolved, that we hereby express our sincere and feeling regret that he could not remain longer in our midst, and express our lasting gratitude and appreciation of the privilege which has been granted us of knowing the charm of his friendship, and the helpfulness of his sympathy, and the example of his character, and

Be It Further Resolved, That this resolution be spread upon our records, and that a copy of it be transmitted to the family of Dr. Jones.

(Signed.) P. H. Jones,
Charles McVea,
L. G. Stirling,
Chairman.

Minutes of the Bi-Parish Medical Society (Natchitoches, Red River Parish).—At a regular meeting of the Bi-Parish Medical Society held at Coushatta, La., on Wednesday, April 9, 1913, the following answered to roll-call: Drs. W. F. Sibley, F. F. Wimberly, C. E. Edgerton, W. W. Gahagan, W. N. Huggins, W. L. Davis, J. L. Kelly, W. T. Williams, E. W. Breazeale and W. A. Roylston. President Sibley called the meeting to order, the secretary being absent. Dr. W. L. Davis was appointed secretary *pro tem.* In the absence of members to read papers, by appointment of the president several interesting cases were detailed, followed with general discussion.

The following resolution was offered, and on being duly seconded, was unanimously adopted:

"*Whereas,* the illegal practice of medicine continues to prevail in both Natchitoches and Red River Parishes, as well as throughout the entire State, we, as an integral part of the Louisiana State Medical Society, and being desirous of the advancement of medical science and knowledge, believe that it is the duty of the medical profession to advance and uphold its efficiency, and to promote this efficiency, believe it right that every practitioner of medicine should be thoroughly equipped to practice the healing art, as evidenced by his fulfillment of all the requirements of the laws of our State; we therefore wish to register our protest against all persons practicing medicine illegally, and hereby offer our aid to the Louisiana State Medical Society looking to the quelling of this pernicious practice. It is further

"Resolved, That a copy of this resolution be forwarded to the Louisiana State Medical Society, a copy spread upon the minutes of this Society, and same incorporated in the proceedings of the Society as published in its authorized journal."

The following were elected as officers for the ensuing year: Dr. C. E. Edgerton, president; Dr. W. W. Gahagan, vice-president; Dr. E. W. Breazeale, secretary and treasurer. The following were appointed as delegates to the Louisiana State Medical Society: Dr. W. W. Gahagan, from Red River, and Dr. F. F. Wimberly as alternate; Dr. W. F. Sibley, from Natchitoches Parish, and Dr. E. R. Harrington as alternate.

The program for scientific papers not being carried out, the president reappointed the members to prepare papers for the next meeting, as had been outlined at the previous meeting. There being no further business, the meeting adjourned, to convene at Natchitoches, La., on Wednesday, December 3, 1913.

Dr. Edgerton invited the members to a banquet at Dr. W. A. Boyston's home, which had been prepared by the Methodist Ladies' Aid Society. Representative men of the legal and educational professions were also invited, together with their wives, and a more magnificent spread has seldom graced a dining-hall. Wit, wisdom, repartee and fitting toasts flowed from fertile brains, which lasted way into the afternoon, making the day a most memorable one.

(Signed) Dr. E. W. Brazeale, Sec. and Treas.

The Vernon Parish Medical Society held its annual meeting on April 2 in its hall at Leesville, La. Dr. D. O. Willis was elected president; Dr. F. P. Jones, vice-president; Dr. M. R. McAlpin was re-elected secretary-treasurer. Dr. Jones was chosen as delegate to the State Society, and Dr. N. M. Palmer as alternate. The Society adjourned to meet Wednesday, July 2, 1913. Later in the evening the members of the Society and a few of their friends enjoyed a banquet at the National Hotel.

(Signed) M. R. McAlpin, Secretary.

The Avoyelles Parish Medical Society met at Mansuria, April 3, with the following members present: Drs. E. Regard, P. Jeansonne, T. A. Roy, G. Drouin, W. F. Couvillon, L. C. Tarleton, L. Chatelain, R. G. Fox, J. C. Parrot, W. A. Quirk, E. T. Mathews, E. A. Poret, S. Y. Couvillon, R. G. Ducoté, Elliott Kiblinger and P. E. Brahic. Dr. A. C. Bordelon was elected a member.

This was a banner meeting, and this year promises to be the banner year for our association. So far, twenty-two members have paid their dues, and I expect others to follow. Next meeting at Bunkie in July. (Signed) Dr. P. E. Brahic, Secretary.

Medical News Items.

The Mississippi Medical Association held its annual meeting in Vicksburg, April 8 and 9, with about 400 physicians in attendance. The meeting was a very successful one from many standpoints.

St. Luke's Guild held its annual meeting in Marquette Hall April 1. At the close of the meeting the following officers were elected unanimously: Dr. L. M. Provosty, president; Dr. Homer

Dupuy, first vice-president; Dr. E. H. Walet, second vice-president; Dr. N. F. Thiberge, secretary; Dr. J. S. Hebert, treasurer. Executive committee: City members, Drs. C. V. Vignes, W. H. Seeman, M. J. de Mahy, T. J. Dimitry and J. M. Elliott; country members, Drs. Hubert, Thibodaux, Grace, Ayo and O'Donnell.

Health Association Formed.—At the call of the American Medical Association executive officers of eighty-seven of the most prominent national organizations interested in public health problems met on April 13, at the headquarters of the American Association for Labor Legislation, to consider forming a central national health organization to co-ordinate work in this field. Dr. Henry Baird Favill of Chicago opened the meeting and John M. Glenn of the Russell Sage Foundation was elected chairman. Steps were taken to organize, through a representative committee of fifteen, which will investigate and report.

Public School Lecture.—On April 5 Dr. Isadore Dyer delivered a lecture on the "Care of the Skin" at McDonogh No. 16 School. Dr. Dyer explained the relation of the skin to many ailments of the body, and said that the school children, especially in the lower grades, ought to be taken in hand by their teachers, who, in turn, needed to be well versed on the subject. This lecture was one of a series arranged among the various branches related to school hygiene.

Lectures to Mothers.—Touro Infirmary is to have a series of lectures, given by thirty-five prominent physicians of the city, starting March 26, at 4 o'clock in the waiting room of the infirmary. The talks will be given to mothers and other ladies interested and will be along the lines of care of babies and children. In all forty lectures will be delivered, two every Wednesday and Friday afternoon. Twenty minutes will be allowed the speakers and the lectures will be extremely interesting and to the point, clothed in the simplest language.

Chemistry Lecture at Loyola University.—Dr. Philip M. Asher, dean of the New Orleans College of Pharmacy, delivered a scientific address in the auditorium hall of Loyola University on April 10. His talk, "The Chemical Aspects of Daily Life," was interspersed with a number of chemical experiments with water, acids and various liquids. He explained the various laws governing them in a thoroughly comprehensive and entertaining manner.

To Prevent Tuberculosis.—The Louisiana Anti-Tuberculosis League has announced that it is prepared to give a three months' instruction course in the prevention of tuberculosis. Symptoms attacking the victims of this great white plague and the treatment to follow will be thoroughly explained. This instruction will take place at Camp Hygeia, where patients afflicted with the disease in its first stage are cared for.

Exchange of Scholarships.—The School of Hygiene and Tropical Medicine of Tulane University of New Orleans and the Seemans-Krankenhaus und Institut fur Schiffs und Tropenkrankheiten of Hamburg, Germany, have entered into an agreement by which they will exchange students each year, and the first student from Tulane will start on his long journey in June and the first German student will reach Tulane in September. The student from New Orleans will have all his college expenses exempted by the German school, and the student from Hamburg will have all his expenses exempted at Tulane.

Minnesota to Make Defectives Sterile.—By a vote of 61 to 45 the lower house of the Minnesota Legislature passed a bill on April 1 providing for sterilization by the State of defectives, habitual criminals and degenerates.

Anniversary of New Orleans Polyclinic.—On April 7 the New Orleans Polyclinic celebrated its twenty-fifth anniversary with impressive exercises, consisting of brief addresses by prominent physicians and scientists. A large crowd of doctors and other interested attended, and after the splendid progress of the institution had been reviewed, refreshments were served to those present.

Free Milk Depots.—The establishment of free milk depots for the benefit of the city's poor is in formation. The object of the depots, if established, will be the distribution of unpolluted milk to indigent persons during the coming summer months. The milk is to be pasteurized or modified by the milk laboratory at Touro Infirmary. The fundamental object of the movement is not alone to furnish milk, but also to disseminate knowledge relative to sanitation and the proper feeding of infants, which will result in a decrease in juvenile mortality. The milk movement is only one phase of a general plan for child welfare.

Insane Hospital to Make Additions.—The Louisiana Hospital for the Insane at Pineville is to have two new buildings added

to it, which will take care of 150 additional patients. One building will be for the white males and the other for the white females. They are to be constructed similar to the latest modern buildings at the North Madison (Indiana) Asylum, which is considered the most modern asylum in the Middle West.

Carnegie's Gift to School.—Another million has been placed to the credit of the endowment fund of the Carnegie Institute of Technology by the former steel king, which brings the total up to $8,000,000. Formal announcement of the gift was made at the Founder's Day exercises at Carnegie Music Hall, April 4.

The Glasgow Lister Ward and Museum.—As a memorial to the late Lord Lister, one of the wards in the Royal Infirmary, Glasgow, is to be reserved and utilized in the following way: One part is to be refurnished as it was in his time with such objects as it may be possible to acquire, while the other part is to be made into a museum. Anyone having letters, pamphlets, books or other objects of personal association with Lister and his work is asked to either present or loan them to the museum. Prof. John H. Teacher, M. D., Hon. Curator of the Museum, will be pleased to receive any contributions addressed to the Royal Infirmary, Glasgow, Scotland. Names of donors or senders are to be affixed to the exhibits.

The St. Louis College of Pharmacy held its commencement exercises at the Sheldon Memorial Auditorium on April 23, 1913.

The International Congress at London.—Daily general sessions will be held at the Albert Hall at 5:30 p. m. and general addresses will be delivered as follows: Wednesday, Aug. 6, address in Medicine, Prof. Chauffard of Paris; Friday, Aug. 8, address in Pathology Geheimrath, Prof. Paul Ehrlich of Frankfort; Tuesday, Aug. 12, address on public health, Rt. Hon. John Burns, M. P., president Local Government Board; address in surgery, Prof. Havrey Cushing of Harvard University; address on heredity, W. Bateson, F. R. S. The various sections will meet at 9:30 a. m. and 3 p. m. daily. The official languages of the congress will be English, French, German or Italian.

Instructor for Miraj Medical School.—A teacher of physiology, chemistry, physics, biology and bacteriology is needed to work in connection with the Presbyterian Mission Hospital Medical

School and Leper Asylum at Miraj, West India. A man who has a knowledge of X-ray work is preferred. Christian men who wish to investigate this opening should send full particulars regarding their qualifications to Mr. Wilbert B. Smith, 600 Lexington avenue, New York City.

The Third International Congress of Neurology and Psychiatry will meet in Ghent, Belgium, Aug. 20-26, 1913. The membership fee is 20 francs and all interested should address Dr. DeVoltte, 192 Avenue Albert, Brussels, Belgium.

Infant Mortality.—An English-Speaking Conference on the Prevention of Infant Mortality will be held in Caxton Hall, Westminster, London, on Monday morning, Monday afternoon and Tuesday morning, August 4 and 5. The meetings will be held under the auspices of the (British) National Association for the Prevention of Infant Mortality and the Welfare of Infancy under the patronage of the king and queen, and will convene immediately preceding the opening of the International Medical Congress.

A tentative program has been issued by the committee, which indicates that the papers will consist largely of medical opinion.

The subjects treated will be:

The responsibility of central and local authorities in infant and child hygiene.

The administrative control of the milk supply.

The necessity for special education in infant hygiene.

Medical problems in infant nutrition.

Ante-natal hygiene.

The president of the conference will be the Hon. John Burns, M. P., president for the Local Government Board. The chairman of the English executive committee is Sir Thomas Barlow, and the secretary, Miss J. Halford, 4 Tavistock Square, London, W. C.

The American committee, in charge of the part to be taken by the United States and Canada, will furnish information to those desiring to attend the conference. All interested should address Dr. Henry L. Coit, chairman, 277 Mt. Prospect avenue, Newark, N. J., or Dr. Philip Van Ingen, secretary, 125 East Seventy-first street, New York City.

The Iowa Association of Orificial Surgeons held its first annual meeting in the parlors of the Savery Hotel at Des Moines,

March 5. The following officers were elected: President, Dr. W. H. McCartney, Des Moines; vice-president, Dr. C. L. Stoddard, Boone; secretary-treasurer, Dr. W. J. Buck, Des Moines; Dr. A. E. Shaw and Dr. W. A. Guild, both of Des Moines, Ia., members of the executive committee. Des Moines was chosen as the next place of meeting.

The American Society of Tropical Medicine will hold its tenth annual meeting with the Congress of Physicians and Surgeons at Washington, D. C., May 6, 7 and 8. The headquarters will be at the Hotel Bellevue. Drs. Wellman and Bass are on the program from New Orleans.

The Ninth Triennial Session of the Congress of American Physicians and Surgeons will convene in Washington, D. C., May 6 and 7. This Congress comprises the following associations. The meeting place of each association is indicated with its title:

American Ophthalmological Society, the New Willard.

American Otological Society, the Raleigh Hotel.

American Neurological Association, the New Willard.

American Gynecological Society, the Raleigh Hotel.

American Laryngological Association, the Raleigh Hotel.

American Surgical Association, United States National Museum (Tenth and B streets).

American Climatological Association, Banquet hall, New Willard Hotel.

Association of American Physicians, Banquet hall, New Willard Hotel.

American Association of Genito-Urinary Surgeons, the Shoreham Hotel.

American Orthopedic Association, Red parlor, New Willard Hotel.

American Pediatric Society, the New Willard.

American Association of Pathologists and Bacteriologists, Cosmos Club.

The American Society of Tropical Medicine, the Bellevue Hotel.

The American Dermatological Association, the Shoreham Hotel.

Col. William C. Gorgas is president of the assoication and the vice-presidents are the presidents of the constituent societies. Dr. Isadore Dyer of New Orleans is president of the American Der-

matological Association, and therefore one of the vice presidents. All meetings not executive of all of the societies are open to physicians, though membership is limited to the constituent society's members or to visitors accredited through these societies.

The general headquarters will be at the New Willard Hotel, where all registration of members or guests or visitors should be effected on arrival.

The Mississippi Valley Medical Association will meet in New Orleans Oct. 23, 24 and 25, 1913, with headquarters at the Grunewald Hotel. Thus far the following tentative announcement of program can be made: Symposia before the joint sessions of the medical and surgical sections; (1) "Preventive and Other Medical Problems of the Mississisppi Valley," (2) A Consideration of the Ductless Glands, as relates to Infantilism, the Nervous System and its Surgical Aspect," (3) "Medical Research."

Medical Colleges in Richmond Merge.—The two medical colleges in Richmond, Va., have combined, and on March 22, 1913, the new faculty was announced.

Tulane Seniors Receive Hospital Appointments.—Five Tulane Medical School seniors were successful in the competitive examinations for the St. Louis City Hospital. Messrs. C. A. McWilliams, W. W. Trimble, J. E. Furr, T. G. Cleveland and H. S. McMurray. There were 45 vacancies and 222 applicants.

Ten Tulane seniors were appointed to the New Orleans Charity Hospital after competitive examination on April 5: Messrs. A. A. Comeaux, D. Adiger, R. Bernhard, G. A. Cronan, H. J. Gondolf, T. A. Maxwell, B. Sartin, W. S. Kerlin, H. D. Van Schaick, I. Tedesco. Messrs. J. F. Lieberman and T. F. Kirn were named as alternates.

Two seniors have received appointments at the Houston Southern Pacific Railroad Hospital: Messrs. T. H. Bates and F. L. Davidson; Messrs. M. Moody and A. G. McHenry have been appointed to St. Vincent's Hospital at Birmingham. Shreveport* Charity Hospital and Touro Infirmary are yet to be heard from.

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* As we go to press we are advised that the following have been successful in the Shreveport examination: Messrs. A. H. Fortner, W. O'D. Jones, T. J. Fleming, C. J. Petitjean, A. C. Kappel, C. T. Dufner and J. F. Lieberman; and the following at Touro Infirmary: Messrs. J. W. Turner, P. G. Laeroix, L. H. Levy, J. R. D'Aunoy, T. B. Sellers, J. A. Bethea, with J. G. Sanders and W. R. Metz as alternates.

Personals.—President David Starr Jordan of Stanford University has been granted a leave of absence to enable him to go to Europe and work for world peace. Dr. Jordan will visit the Balkan states and view the results of the present war.

Dr. Felix R. Hill, president of Centenary College, Shreveport, La., has tendered his resignation, on account of his wife's ill-health.

Dr. Hermann B. Gessner was a guest of the Tri-County Medical Society of Mississippi, at its meeting in McComb City, April 1, and addressed the society on "Undescended Testicle."

Among the physicians who attended the meeting of the Mississippi State Medical Association were Drs. C. Jeff Miller, John B. Elliott, C. C. Bass, W. W. Butterworth, H. J. Dupuy, L. R. DeBuys, E. L. McGehee and Isadore Dyer.

Removals.—Dr. S. M. Blackshear, from 1101 Maison Blanche building to 606 Perrin building.

Dr. J. L. Violet, from Baton Rouge to Hope Villa, La.

Dr. A. J. Sands, from 423 Twenty-third street, Denver, Colo., to Kansas, Mo.

Dr. D. D. Swearingen, from Clovis, N. M., to Roswell, N. M.

Dr. J. B. McMahon, from 1210 Octavia street, New Orleans, to 1626 Carrollton avenue.

Dr. W. P. Simmons, from Houma, La., to Gibson, La.

Dr. E. G. Calvert, from Monroe to West Monroe, La.

Dr. H. D. Catlett, from Monroe to West Monroe, La.

Dr. J. C. Vidrine, from Ville Platte to Mamou, La.

Mr. M. R. McAlpin, from Almadane to Leesville, La.

Dr. N. M. Palmer, from Stables to Leesville, La.

Dr. R. O. Carter, from Curtis to Sligo, La.

Dr. J. W. Glass, from Rodessa to Vivian, La.

Dr. J. G. Yearwood, from Bayou la Chute to Caspiana, La.

Dr. C. C. Sims, from Moringsport to Shreveport, La.

Dr. E. W. Mahler, from 509 Medical building, to 1204 Maison Blanche building, New Orleans.

Died.—On March 30, 1913, at Nashville, Tenn., Dr. Louis A. Bates, aged 65 years.

On Feb. 27, 1913, at Alexnadria, La., Dr. C. C. Brown, aged 59 years.

On April 11, 1913, Dr. I. W. Scott of this city, aged 87 years.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Diseases of the Stomach and Intestines and Pancreas, by ROBERT COLEMAN KEMP, M. D., with 388 illustrations, some in colors. W. B. Saunders Company, 1912.

The second edition of Dr. Kemp's work contains much new matter. A section of one hundred pages has been added on diseases of the pancreas; also a new section on Colon bacilli Diseases of the liver are not included in the book. Infection, the article on cancer of the stomach, has been rewritten, bringing the article abreast of our present day information on the essential points of the subject.

The book covers a wide range of subjects, some of which, indeed, might have been well omitted. The mention of proprietary mixtures like listerin, glycothymolin, etc., could have been better dispensed with. It is not our intention to damn the book with faint praise, for we consider the work to have much merit, and we look forward to its third edition.

STORCK.

Surgical Operations with Local Anæsthesia, by ARTHUR C. HERTZLER. Surgery Publishing Co., New York, 1912.

A thorough and most practical presentation of the subject is to be found in this volume. We know why cocain and its allied drugs have not been given their just due, either by the laity or by some physicians; it is from the fact that the technic, although much safer when properly carried out than general anaesthesia, is not given the sufficient amount of patient study and experience it requires.

Even the introduction of a hypodermic needle is not too infrequently painful and which could be oftentimes avoided by gently rotating a finely pointed needle and not thrusting it into the patient's arm or elsewhere.

We note that the author uses the term local anesthesia instead of local analgesia; the latter has always appealed to us to indicate the special condition of common sensation without pain which is the rule with a faultless technic and a not too sensitive patient.

We heartly endorse Hertzler's remark that "gentleness is the measure of skill."

LARUE.

Diet and Hygiene in Diseases of the Skin, by L. DUNCAN BULKLEY, A. M., M. D. Paul B. Hoeber, New York.

This book is the compilation of a series of lectures delivered by the author at the New York Skin and Cancer Hospital and it embodies the well known ideas of Bulkley in the relation of diet to skin disorders. It is interesting reading and many valuable hints in diagnosis and therapeutic care of the case are to be found.

DYER.

Principles in Human Physiology, by ERNEST H. STARLING, M. D., F. R., C. P., F. R. D., etc. Lea & Febiger, Philadelphia and New York, 1912.

This makes more than a text-book; it is an exposition of newer ideas in physiology. The conception of proteins is modern and is keyed to the

idea of physiology as practically applied to disease. The chemic side of physiology is constantly brought forward, and, of course, particular emphasis is laid on the chemic changes as related to function. So much for one phase—but it would need a large review to consider all the phases of this admirable work. Each topic is completely covered or in a manner which shows careful preparation of the material.

Between the covers and in nearly fourteen hundreds pages, all functioning organs are discussed and in detail. Beginning with the essential structural cell elements of the body, the book ends with a most interesting and comprehensive discussion of the sex function and the relation of the sexes. The illustrations are numerous and serviceable. The work will altogether fulfil the hope of the author that it may be of value to the candidate for a degree and to the practitioner seeking knowledge of the causes of disease. DYER.

Clinical Studies for Nurses. A text book for second and third year pupil nurses and a handbook for all who are engaged in caring for disease, by CHARLOTTE A. AIKENS. Second edition. W. B. Saunders & Co., Philadelphia and London, 1912.

In so considerable a mass of information there is much which the nurse will find valuable; still there is much which it might be unwise to teach any but the highly educated nurse. The material is excellently presented and shows a wide collection of medical references from which it has been drawn. Altogether, a very instructive book for either nurse or layman, but if intended for a text-book, it might be well to omit much which falls rather in the physician's province than in the field a nurse is permitted to exercise. DYER.

Primary Studies for Nurses. A text book for fourth year pupil nurses, by CHARLOTTE A. AIKENS. Second Edition. W. B Saunders & Co., Philadelphia and London, 1912.

A thoroughly practical book, full of just what the trained nurse needs, and set forth in a fashion which should make the material offered easy of assimilation. This book deserves the popularity a second edition would indicate. DYER.

In Introduction to the Study of Infection and Immunity, including chapters on Serum Therapy, Vaccin Therapy, Chemotherapy and Serum Diagnosis, by CHARLES E. SIMON, B. A., M. D. Lea & Febiger, Philadelphia and New York.

With a brief history and introduction, the subject of this text is discussed in a series of chapters aimed at arranging the organisms attacking the human economy in their relation to the passive and the resisting host. So, aggressivity, immunity, anaphylaxis and infection are severally discussed. Incidentally, the theories of infection, of immunization, of the blood changes, etc., are related in full detail. Particular diseases are presented, with a careful study of the characters of each from the points of infection and immunity. The work concludes with a review of salvarsan in syphilis, the agglutination reaction, precipitin reactions and allergic reactions. DYER.

Diagnostic Methods, Chemical, Bacteriological and Microscopical, by RALPH W. WEBSTER, M. D., Ph. D. Second edition. P. Blakiston's Son & Co., Philadelphia.

It might have been better to have called this book a thesaurus of current information on the examination of the internal and orificial secre-

tions and of the blood—for the book just covers this. Even then not enough would have been said of the contents, for in each of the topics embraced the material information is enormous. Sputum, gastric and intestinal secretions and excretions, spermatic fluid, urine and blood are treated with a most minute concern for exact knowledge. Throughout there are numerous illustrations, and, in the chapter on blood, beautiful colored plates elucidate the text.

A second edition of this work is certainly timely, and, so long as it may be kept up to date, there will be demand for repeated editions. DYER.

Publications Received.

C. V. MOSBY COMPANY, St. Louis, 1913.

Golden Rules of Gynecology, by Geo. B. Norberg, M. D.

Tuberculin in Diagnosis and Treatment, by Francis Marion Pottenger, A. M., M. D., LL. D.

Epidemic Cerebro-spinal Meningitis, by Abraham Sophian, M. D.

LEA & FEBIGER, New York and Philadelphia, 1913.

Progressive Medicine, edited by Hobart Amory Hare, M. D., and Leighton F. Appleman, M. D. Volume xxv., No. 1, March 1, 1913.

Nervous and Mental Diseases, by Charles S. Potts, M. D. Third edition, revised and enlarged.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1913.

International Clinics, Volume I, twenty-third series, 1913.

L. C. PAGE COMPANY, Boston, 1913.

The Career of Dr. Weaver, by Mrs. Henry Backus.

W. B. SAUNDERS & CO., Philadelphia and London, 1913.

Surgery, edited by Wm. Williams Keen, M. D., LL. D. Volume VI.

F. A. DAVIS COMPANY, Philadelphia, 1912.

A Text-Book of Physiology, by Isaac Ott, A. M., M. D. Fourth edition, revised and enlarged.

Diseases of the Stomach and Upper Alimentary Tract, by Anthony Bassler, M. D. Second edition, revised and enlarged.

PAUL B. HOEBER, New York, 1912.

Systematic Case Taking, by Henry Lawrence McKisack.

E. B. TREAT COMPANY.

The International Medical Annual, 1913. New York, 1913.

MISCELLANEOUS.

The Annual Report of the Surgeon-General of the Public Health Service of the United States, for the Year 1912. (Washington Government Printing Office, 1913.)

Public Health Reports, Volume XXVIII, No. 10, 11, 12, 13. (Washington Government Printing Office, 1913.)

Letter from Mr. J. P. Morgan & Company in Response to Hon. A. P. Pujo, Chairman of the Committee on Banking and Currency. (New York City, February 25, 1913.)

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
For March, 1913.

Cause.	White	Colored	Total
Typhoid Fever	3	------	3
Intermittent Fever (Malarial Cachexia)	------	------	------
Smallpox	------	------	------
Measles	7	------	7
Scarlet Fever	------	------	------
Whooping Cough	------	------	------
Diphtheria and Croup	9	2	11
Influenza	6	4	10
Cholera Nostras	------	------	------
Pyemia and Septicemia	------	1	1
Tuberculosis	32	40	72
Cancer	16	6	22
Rheumatism and Gout	------	1	1
Diabetes	1	-----	1
Alcoholism	2	------	2
Encephalitis and Meningitis	9	12	21
Locomotor Ataxia	1	1	2
Congestion, Hemorrhage and Softening of Brain	24	9	33
Paralysis	6	2	8
Convulsions of Infancy	------	1	1
Other Diseases of Infancy	8	9	17
Tetanus	------	5	5
Other Nervous Diseases	3	------	3
Heart Diseases	68	36	104
Bronchitis	4	9	13
Pneumonia and Broncho Pneumonia	19	36	55
Other Respiratory Diseases	2	------	2
Ulcer of Stomach	1	2	3
Other Diseases of the Stomach	8	8	16
Diarrhea, Dysentery and Enteritis	19	13	32
Hernia, Intestinal Obstruction	1	2	3
Cirrhosis of Liver	5	3	8
Other Diseases of the Liver	3	3	6
Simple Peritonitis	------	------	------
Appendicitis	3	------	3
Bright's Disease	37	26	63
Other Genito-Urinary Diseases	9	11	20
Puerperal Diseases	2	1	3
Senile Debility	9	1	10
Suicide	5	------	5
Injuries	15	19	34
All Other Causes	18	13	31
Total	355	276	631

Still-born Children—White, 16; colored, 12; Total, 28.

Population of City (estimated —White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 15.66; colored, 32.79; Total, 20.30.

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

Mean atmospheric pressure 30.12
Mean temperature 61.3
Total precipitation ..... 4.84 inches
Prevailing direction of wind, northeast.

New Orleans Medical and Surgical Journal.

VOL. LXV. JUNE, 1913. No. 12

Original Articles.

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

The Importation of Foundlings—A Sociological Problem. A Protest.*

By HOWARD D. KING, M. D.,

Instructor in Tropical Medicine in Tulane University, and Visiting Physician to the Charity Hospital, New Orleans.

About a fortnight ago, or possibly longer, there appeared in the daily press of New Orleans an announcement from the Superintendent of the Foundlings' Hospital, in New York, that some time in April there would arrive in New Orleans several car loads of babies from that institution for distribution throughout this city and other parts of the State. As all of you are doubtless aware, this distribution of foundlings has been going on for five or six years, and up to this time the cold hand of Science has not arrayed itself against the warmth of humanity.

As individual physicians, as members of the representative medical organization of this city—the Orleans Parish Medical Society—we hold quasi-official positions in this community; we belong to the world of mankind; and, in our efforts to spread the gospel of

* Read before the Orleans Parish Medical Society, March 10, 1913.

health and well being; to check or prevent the diffusion of disease; to diminish suffering or baffle death, we should, if necessary, temporarily, and, I say it, advisedly and guardedly, disregard the warmth of humanity and the charity of our calling, and we should know no maxims except those of truth and duty—and all this in behalf of the people with whose physical welfare we are entrusted. The question before us to-night, therefore, is: "Whether the importation of foundlings from New York City for distribution throughout this community is of any material, social or physical benefit to New Orleans."

It is not alone a sociological problem, but a medical one as well, and I, for one, raise my voice against the practice and hope that measures looking to the correction of this unwarranted abuse will soon be forthcoming. The subject in its broadest sense is measured only by the boundaries of the world, but the limitations of this paper are, by necessity, sharply defined and will be adhered to strictly. Indeed, I set these restrictions in advance, for, frankly speaking, the subject in its other and, perhaps, equally interesting, phases tempts one to wander far afield; therefore, I will confine myself to the medical phases of the problem.

Consider for a moment where these babies come from—New York City—that great clearing house of crime and misfortune; the shore on which is washed up the debris of wrecked lives; the human wreck heap of America. Again, stop and wonder, for what, if any, reason should New Orleans be selected as one of the principal dumping grounds for this human refuse! Have we not many keen and poignant social problems awaiting solution? Are not our manifold and vital health problems of sufficient import to keep us busily engaged? With our large negro population, our cosmopolitan and heterogeneous horde, all densely ignorant and refractory to social and civil influence, our illimitable sanitary problems, it is my opinion that we should protest, in the interest of the welfare of the community, against any additional social, economic or medical problems being thrust upon us. Let us remember that upon us devolve not only medical responsibilities, but also the moral responsibilities inseparable from the practice of medicine.

Will the power of a dubious heredity survive and, if it does, of what benefit will it, in time, prove to the community? Weigh this question well! In the perpetuation of race degeneration the foundling must be considered a most potent factor. Students of

neurology and criminology are agreed as to the influence of heredity in the causation of imbecility, insanity, epilepsy, alcoholism, moral depravity, criminal lunacy and kindred conditions. What foundling is able to present a clear ante-natal history? Aside from the forces of varied neuroses when fostered by heredity and environment, there still remain the problems of tuberculosis and syphilis. Of the conditions just mentioned, heredity as a predisposing cause cannot be lightly passed over, and social protection against these maladies is of the greatest importance.

Attacks of mental disease are often determined by the great physiological epochs and "crises" of life. The facts about puberty and adolescence of most concern are that they are the periods full of the possibilities and probabilities of arrested, perverted, and postponed mental and moral developments, and of the risks of diseases of many kinds, especially nervous conditions. These are, to a great extent, the result of hereditary tendencies; indeed, evil heredity in certain respects then first comes into its fullest play.

Alcoholism is always an expression of commencing race degeneration. A high percentage of the offspring of alcoholics turn out physically and morally deteriorated; this physical and moral deterioration may be long delayed. Thus it can be readily seen that it is the latency or dormancy of mental defects which cannot be guarded against.

The probability of a hereditary predisposition to tuberculosis is another condition which cannot be overlooked. It is well known that children are subject to this disease. In view of the great mortality from this disease, much legislation is being enacted to restrict the marriage and consequent propagation of tuberculous individuals.

One of the greatest dangers of syphilis is the transmissibility of the disease to the offspring. This manifests itself in different ways, according to the duration of the disease in one or both of the parents and according to the sex of the procreator.

The influence of illegitimacy is never relaxed—the children of the "Sorrowful Brotherhood" have as their heritage the deficiencies and weaknesses of both parents.

A brief sketch of the usual type of the foundling's female parent will aid us in realizing the seriousness of the problem with which we are contending. Through social and political developments, many changes have been wrought in our social system—none more

notable than in the great number of females who are pursuing vocations formerly followed only by men. This has reference largely to factory and mill operatives and department store employees. That women in the conditions to which industrial life places them are suffering an appalling increase in nervous disease, that they are less and less able to resist temptations to immorality and intemperance, that incapacity to work is coming on them earlier, that increasing numbers are suffering strains which are irreparable, and that as a result of all this they are bringing into the world children puny in mind and body—these things admit of no dispute. The vicissitudes, deprivations and hardships, the strain and trial of twentieth century life, coupled with the keenest competition, impose upon the female worker a task she is unable to bear and yet remain physically fitted for motherhood. Add to this the mental anguish over the disgrace of an un-named child and you have a faithful picture of the mental condition of the unwilling mother. And, unfortunately, the greatest number of foundlings are recruited from the type just described.

At this very moment the press of the country is full of rather lengthy accounts of the investigations being carried on by the Illinois Vice Commission, under the chairmanship of Barrett O'Harra, Lieutenant-Governor of that State. Many of the female witnesses thus far interrogated by that Commission represent the motherhood of foundlings.

The male parent of the foundling needs no description at my hands. He has been too well painted by Julia Addams, of Hull House fame, of Chicago, in her latest book, *"A New Conscience and An Ancient Evil." "The Eldest Son,* a Domestic Drama in Three Acts," by John Galsworthy, also presents a well-drawn picture of the foundling father as he exists among the rich and in addition faithfully depicts the attitude of wealth towards the fallen woman and her illegitimate offspring.

In brief, this is the parental side of the foundling.

Have you any idea of the ante-natal picture of the environment of the foundling—the industrial centers of large cities—especially in regions where low-paid working men and women are housed—where the drink evil is at its worst and the general morality at its lowest? Who of us has not seen the dirty living quarters, close and ill ventilated—usually the tenement—in the congested districts of the larger municipalities? Who of us is ignorant of the vitiated

moral and physical atmosphere of New York's East Side. Overcrowding, squalor, intemperance and immorality! Weigh their cost! This is the usual origin of the type of foundling sent to New Orleans for distribution among the non-productive members of connubial society. The question, therefore, naturally suggests itself: What will be the future of these foundlings? Statistics are practically unobtainable, as it is instinctive with the foster parents to conceal every fact concerning the infant's progress in order to remove the stigma of illegitimacy and institution-rearing. Possibly the authorities of the New York Foundling Hospital might know something of the after-history of the child, but do they care or are they concerned once the child becomes a citizen of this State through legal adoption? Who can say that the influence of the new parents will outweigh the influence of the old ones? Is a second birth under kindlier circumstances more potent than evil blood?

To the above questions sociological students will readily answer "Yes"—it is their mistaken zeal, their misdirected charity, their untrained altruism which prompts such an answer. But, as medical men, we cry aloud to scientific medicine for an answer and the only reply is the wailing echo of uncertainty. But the facts—the cold scientific facts—are strongly against the survival of a dubious heredity. Who can say with any degree of accuracy that the foundling of to-day might not be the epileptic, the kleptomaniac, the pervert, the courtesan, the dement, the physically unfit or the public charge of to-morrow?

New Orleans has its burdens and is in no position to undertake and relieve those of its wealthy neighbor of the East, New York City. Some may argue appealingly in behalf of the childless fireside and urge the domestic void should be filled at any cost. This aspect of the problem I must pass over, the question being in its entirety too vast for treatment in this paper. However, in closing, I would suggest only as an alternative for the relief of the childless of this State and city the adoption of children from local institutions, whose family and personal histories are at least better known than those of the imported foundlings from New York City.

Modern Conceptions of Diabetes Mellitus.*

By ISAAC IVAN LEMANN, M. D., New Orleans.

The work that has come from Van Noorden's clinic in the past four years has been chiefly responsible for the newer conception of the pathogenesis of the disease. The experiments of Falta, Eppinger and Rudinger, showing the interrelation of the ductless glands and their role in the production of glycosuria, have opened up a much broader view of diabetes than we have hitherto had. When Claude Bernard performed his classic experiment of producing glycosuria in a dog by irritating the floor of the fourth ventricle, it was thought that an explanation of diabetes had been found—namely, that the cause of the disease lay in some fault in the nervous control of the liver's glycogenic function. You will remember that it is one of the functions of the liver to receive from the portal vein blood which is rich in dextrose—the degree of dextrose content being dependent upon the diet—and to store up this dextrose as glycogen. From this store of glycogen the liver gives off from time to time such amounts (again reconverted into dextrose) as will keep the circulating blood at a practically constant standard with regard to dextrose content. In the muscles and tissues this dextrose is burnt up and produces energy and heat. It was apparent, however, that the picture of Claude Bernard did not parallel all the clinical conditions of diabetes mellitus and that the assumption of a lesion in the fourth ventricle or in the sympathetic nervous system through which the impulse is transmitted from the fourth ventricle to the liver could not account for the symptom complex we know as diabetes mellitus. And, finally, the post mortem examination of diabetes patients has not shown uniformly or even in such numbers such lesions. The next great step in advance in the study of the production of diabetes was the discovery of pancreatic glycosuria by Von Mering and Minkowski. These investigations showed that whenever the whole pancreas was removed from dogs, the latter became glycosuric and exhibited a condition which was precisely like that of diabetes mellitus. Further work upon this subject, especially by Opie, has shown that these diabetic symptoms are in all probability due to the destruction of the islands of Langerhans and not to the damage done to the glands at large. However, autopsies have shown extensive disease of the pancreas

* Read before the Orleans Parish Medical Society, March 24, 1913.

without the appearance of glycosuria or diabetes having been intravitam, and on the other hand post mortems held on patients who had been unmistakably diabetic failed to show the slightest change in the pancreas.

Thus up to recent times it was possible to say that probably some cases of diabetes were caused by pancreatic lesions in the nervous system, but it could not be shown that even a majority of cases were represented by these two categories. Meanwhile, through clinical observation and experience, a number of suggestive and instructive facts were being brought out. One of these was the observation that a glycosuria could be produced by the injection of adrenalin. Another significant clinical fact was the coincident occurence of glycosuria and symptoms of thyroid over functioning in the same individual. Again the so-called bronze diabetes in which the patient has the color of Addison's disease has indicated an involvement of the suprarenals.

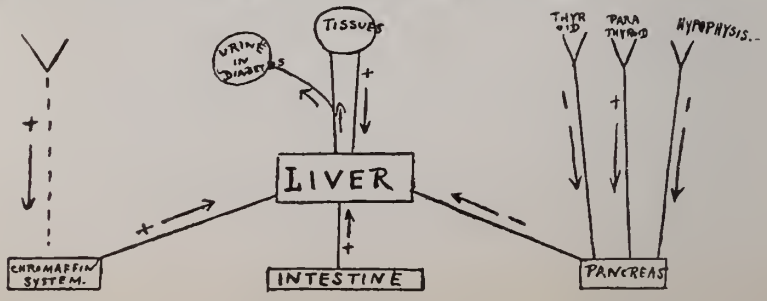
We see then gradual accumulation of hints that in the production of glycosuria and other diabetic phenomena we have to deal in some cases at any rate and to some extent with the so-called ductless glands.

Through the experiments of Eppinger, Falta and Rudinger working in the Van Noorden clinic we have gained an insight into the correlation of these several glands and their relation to carbohydrate metabolism. Upon the basis of the data so obtained it has been possible to erect a hypothesis as to the pathogenesis of diabetes which seems to be in harmony in all particulars with the clinical observations already alluded to. Eppinger, Falta and Rudinger found that the pancreas and the adrenals were mutually antagonistic and opposite in their action with relation to carbohydrate metabolism. The removal of the pancreas caused decreased tolerance for carbohydrates and consequent glycosuria. Removal of the adrenals on the other hand caused increased tolerance for carbohydrates while the injection of adrenalin (representing hyperfunction of the adrenals) produced glycosuria. Zuelzer had previously shown that in guinea pigs the simultaneous injection of suprarenal extract and pancreatic extract did not produce glycosuria although this was produced when the suprarenal extract alone was injected. One of his dogs who lived thirty-six hours after removal of the pancreas and the ligature of the adrenals showed in the first urine 0.2% sugar, in later

urines, no sugar. This was in marked contrast with the usual high grade glycosuria in depancreatised dogs. Upon these and other experiments Zuelzer based the assumption that normally the secretion of the adrenals is neutralized by the pancreatic internal secretion, while when the pancreas is removed the adrenal secretion now unneutralized by pancreatic secretion circulates freely in the blood, acts upon the liver and causes the latter to give up its store of sugar. Eppinger, Falta and Rudinger further found that the thyroid and hypophysis have an inhibiting effect upon the pancreas. Disease or removal of the first two removes their inhibiting influence upon the pancreas and as a result the latter gives off more internal secretion—leading, therefore, to increased carbohydrate tolerance. Per contra, when the thyroid and hypophysis are over functioning the pancreas is unduly inhibited, gives off less of its secretion; consequently the balance between the pancreatic and the adrenal secretion is upset; the latter not being normally neutralized, stimulates the liver abnormally to give up glycogen and thus produces hyperglocemia and glycosuria.

Pancreatic diabetes, therefore, in a sense is really an adrenalin diabetes Not only is this so, but it seems probable that the glycosuria of Claude Bernard's piqure is also nothing more nor less than an adrenalin diabetes. Andre Mayer showed that in rabbits after removal of the adrenals, piqure of the floor of the fourth ventricle does not produce glycosuria. It has further been shown that the impulses travel from the fourth ventricle down along the left sympathetic nerve to the left adrenal and thence by connecting nerves to the right adrenal. If this nervous path is interrupted anywhere in its course, stimulation of the floor of the fourth ventricle produces no glycosuria.

The various ways by which glycosuria can be produced may be illustrated by the diagram below, which has been taken from Van Noorden's recent book, "New Aspects of Diabetes," and his recent article in the *American Journal of Medical Sciences.*



We see, therefore, that lesions or destructions in the central nervous system or sympathetic nerve may cause glycosuria, lesions or destruction of the islands of Langerhans in the pancreas may cause it, and that any lesion in the adrenals, thyroid or hypophysis causing any of these glands to over function will produce it. Diabetes probably is not an entity—not a true disease, merely a symptom complex which may have as its basis a varying pathology.

As a practical matter, how does this modern conception of diabetes aid us in our treatment of these cases? As far as specific treatment is concerned we have so far received no immediate help, but the future should certainly yield something in this direction from further researches and investigations into the ductless glands. For the present as for a hundred years the dietetic treatment of the disease holds first place.

In concluding this brief synopsis of modern conceptions of diabetes I think it not out of place to summarize and emphasize the modern principles in treatment, of which Van Noorden is the greatest living exponent. First and above all else comes individualization. Generalization as to diets good for all diabetic patients is worse than useless. Second we must determine for each patient his point of tolerance for carbohydrates. Third we must attempt by means of short periods of non-carbohydrate diet and the intercalation of oatmeal days and of green days, to bring the patient to a point where he no longer passes sugar in his urine. Where this is accomplished our aim should be to keep his urine permanently sugar free by prescribing a diet within his limits of carbohydrate tolerance and by returning from time to time for limited periods to a strict carbohydrate diet in order to further educate and improve the tolerance. When it is not possible to make the urine sugar free by even the most stringent restriction of carbohydrates or even of meats, it is necessary to prescribe a permanent diet containing an arbitrary amount of starchy food, say one hundred grams of white bread or its equivalent. At intervals such a patient is also returned to a strict diet for a limited time. No patient should be placed permanently upon a strict non-carbohydrate diet. Fortunately such a diet is never observed even when it is prescribed.

The Duties of the Medical Man as Expert and Witness, and the Importance of Careful Examination of Railway Accident Cases.*

By E. DENEGRE MARTIN, M. D., New Orleans.

This work has grown to such proportions within the past two years that I have thought the time opportune to discuss it, that we, as a profession, might not grow into such disrepute as have many of our confreres in other States.

Whereas the same rule would apply to the examination of any accident cases where suit is likely to result from injury, I have thought best to limit my remarks to railway cases, as these are in the majority. It has been my observation for many years that few of the physicians who attend these cases realize the importance of thorough and systematic examination of this class of patients. For some unaccountable reason the railroads are looked upon as a legitimate prey and perhaps for this reason the injured party's statement is too often accepted as true.

In my eighteen years' experience in this work, during which time I have examined hundreds of cases connected with every road running into the city, I have met but a single instance in which a man was injured while on a train and did *not* make claim for damages; this man died shortly afterward from pneumonia, and I am quite sure it was because Gabriel heard him say that he did not hold the road responsible, and would make no claim; he was reckoned too good for this world by the recording angel and called to his heavenly home.

It is only those extensively engaged in this work who are familiar with the many ruses resorted to by these people to recover damages for even the most trivial injuries. And it seems to make no difference as to their station in life, from the preacher to the laborer, it's just the same. As it has been said that the entrance of a railroad into any new country would raise the grade of cattle from common stock before killing to thoroughbreds after, so will an accident to a supposedly honest man make an apparent liar of him. I can explain this phenomenon only on the theory that there is something in the motion of a train which affects the brain centres and exaggerates conditions which under different circumstances would be perfectly plain and normal. For example, I have had me-

* Read before the Orleans Parish Medical Society, April 14, 1913.

chanics come to me with crushed fingers, an injury which we all know to be extremely painful and sensitive, the injury having been inflicted by the sufferer while driving a nail or using a cold chisel—and yet the recovery from these cases would be almost miraculous, the pain would disappear the next day and the mechanic resume work; but a similar accident occurring on a moving train, though less severe in character, would produce pain as far as the axilla and would persist for days, even weeks, totally disabling the injured party until a settlement could be effected. At our office, where we have examined and treated people from every road, as well as from other concerns that employ a large number of laborers, we have learned to be on guard continually.

To better illustrate this point let me cite just a few cases where close observation and experience played a good part. One of the first so-called fake cases which came to my attention was some years ago when a wreck occurred on the A. & V. road. A man claiming to have been injured came to New Orleans and went to the Touro Infirmary. Next morning I called on him, not as a railroad surgeon, but, as he supposed, the hospital interne, and soon satisfied myself that the gentleman was not hurt, there was no sign of external injury, and yet when he came to my office the next day he was quite lame, limped in on the left foot and limped out on the right. Though his lawyer had made claim for five hundred dollars and immediate settlement, we compromised for fifty.

Only about a year ago a woman called at my office with a deformed Colle's fracture and told me it was the result of an injury received on the I. C. R. R. three months previously, and wanted my opinion before making demands for settlement. I examined the arm carefully, took an X-Ray picture, and my opinion was that it had occurred not three months, but three years previously. The callus was firm and dense She paid me for my opinion, but made no demands on the road. I could cite dozens of similar cases, but time does not permit. This real faking, however, is easier to detect and not so common as the faking of those who have received slight injuries and exaggerate them, attributing any pain or injury to this source.

While some are frauds, others are honest in their belief that they cannot get well until a settlement is made. A case in point was tried only a few weeks ago in the United States Court. A middle-

aged woman while boarding a train fell and bruised her knee, injuring herself painfully. The bruise became infected and she was more or less disabled for sometime. Although the accident occurred nearly a year before the trial, she came into the court-room limping. It was her conscientious belief, I am sure, that she was still a cripple, for how could she get well before her trial? She must show some physical signs of disability else the jury would not know that she had been injured. Everything was dark to her, even the afternoon of the injury, though it was only a quarter of six and the Spring of the year. Had this accident occurred in her back yard it is probable that a few applications of Tichenor's antiseptic and a week in bed would have done the work.

From the history of the accident much is to be learned and this history should be carefully taken, for remember, you will sometimes be called as witnesses in these cases, and if you are not thoroughly acquainted with the details your testimony is liable to be weakened, and for this very reason doctors so often make poor witnesses; some new phase of the case is called to their attention during the cross-examination. The importance of your testimony will impress the judge or jury just as favorably as that of the defendant. If either side, through ignorance or intent of purpose, should misrepresent facts, then he is only aiding and abetting a crime which is becoming much too common to-day. It behooves our profession, at least, to place its stamp of disapproval upon this practice.

The great importance of a careful investigation is well illustrated by a case occurring some years ago on the Northeastern road. A boy about twelve years of age was brought to the hospital suffering from a contusion of the back, claiming that he was struck by a cripple brake while standing on the platform. His statements did not coincide with my knowledge of cripple brakes, investigation proved that such an accident as he claimed from such a source was impossible, and when confronted with the facts he acknowledged that he was stealing a ride, fell and was injured.

You will frequently learn from their statements much of the character of your patients and how much reliance can be put upon their testimony.

The next important step is the comparison of one side with the other, one arm or one leg with the other, etc. Examine old scars carefully and all pathological lesions, they may be old at the time

of accident; a year after the accident when suit is filed they will look no older and may even look young enough to be included in the list. A case in point was a stout woman I was called to see about two months after an accident. She stated that she had been in a wreck and had seriously sprained her ankle and broken two ribs. She travelled some distance after the wreck, was able to walk on the foot and did not know that two ribs were broken until told so by her physician. We know it requires a severe blow to fracture ribs in thin people, much severer to fracture them in fat people; as she had received no such blow the only possible way to fracture them without producing external signs of injury, of which there were none, would be by crushing the chest between two objects; this had not happened. My conclusion was, no fracture, and an X-Ray picture taken later proved that my surmise was correct. An examination of the ankle still snugly bound showed no sign of ecchimosis, notwithstanding that the report stated that the tendons had been torn from their attachments. My attention was called to a swelling under the external malleolus, but examination of the *uninjured* foot showed a swelling even larger; this puffiness is quite common to fat people. I drew my own conclusions, you may draw yours. Carefully note any lesions, no matter how insignificant, at the time of the injury, which may lead to future or permanent injury. I recently saw a man who had been in twelve wrecks. I have seen him after four and each time he claimed permanent injury and never has been able to walk without a stick or crutch until settlement was affected, and although permanently injured he has up to the present always been able to resume his occupation within a reasonable time. Most of these people have temporary permanent injuries.

In reporting these cases be sure you are right, report nothing that you cannot substantiate. When you are called upon to testify stick to facts and be ready to back your statements with proof. I see many of these cases with the physicians who have attended them and on many occasions I have pointed out errors and will always be glad to lend my greater experience to those who desire it, but in too many instances their reports are already in the hands of the lawyer to be used or misused as he may see fit. It is my business to protect the roads which employ me—not from damages—for when they are liable they are willing to pay. We ask only justice, and if physicians attending these injured people would only realize

this it would be better for all parties concerned. It has been my good fortune never to have met but the most courteous treatment at the hands of every physician with whom I have had any dealings, but I am anxious that we come to a better understanding in these matters that our relations in future be not only pleasant, but mutually beneficial.

I have been accused of being a corporation doctor. Why should I resent it? Would any of you? I have been told that when I go upon the stand it is to protect corporate interests against the poor sufferer.

Though I occasionally appear as an expert, my position is more in the relation of consultant and advisor. When I do testify I feel reasonably certain that my testimony cannot be impeached by the medical profession. The day my motives are questioned and my statements not supported by facts, my usefulness as an expert ends, for my testimony must bear the evidence of truth, the whole truth and nothing but the truth.

The Value of the Skiagraph in Medico-Legal Questions.*

By ERNEST C. SAMUEL, M. D., New Orleans.

As a rule the courts of the civilized world now accept a radiograph as evidence in a damage suit. It is first-hand evidence of a fact, and may either corroborate or disprove conclusions arrived at by other methods of examination. It may be the ounce of fact that outweighs a ton of probability in the mind of the juryman. It may upset even expert surgical testimony that is given without an X-Ray examination.

The radiograph has its possibilities and also its limitations. In the first place, the skiagraph reveals in the main bone conditions only. Then it may show the callus in a fracture. It is difficult to say at what period in the recovery the callus should begin to show in the radiograph, as the time varies greatly in different individuals. In the young the callus shows about the fourth week. Although union may have taken place earlier, there has not been a sufficient quantity of calcium salts deposited in the organized callus to make it opaque to the X-Ray previous to the fourth week. In men who are doing hard labor, the callus is seen early. In old

* Read before the Orleans Parish Medical Society, April 14, 1913.

people it appears late, or sometimes not at all. It may be observed in this connection that the non-union of fractures is often due to some constitutional cause rather than to the nature of the accident, and such cause is most frequently found to be syphilis. In the third place, there are some things the radiograph may not show; for a serious condition of the soft parts may be present, such as a dislocated semi-lunar cartilage, and yet the lesion may not be shown by the radiograph.

Now, as for the method of radiographing fractures: two views of a fracture are always an essential requirement. A Colle's fracture is a good illustration of this necessity. In this case the antero-posterior view might show the bones in good position, and yet the lateral view might depict a marked displacement of the fragments. Again: it is often of assistance to make a skiagraph of the sound as well as of the injured side in order to give opportunity for comparison in regard both to anomalies of structure and to the extent of the injury. If a foreign body is involved in the lesion, that body should be accurately located if possible. For example, in the case of railroad workers who have pieces of steel in and around a joint, if the surgeon is ignorant of the exact location of these foreign bodies, his ignorance rather than the accident itself may lead to a stiff joint. In the event of chest injuries, a fluoroscopic examination should be made to supplement the radiographic picture.

In making a plate, it is essential to do it in such a manner that it can be positively identified in court. This identification can easily be assured through the use of lead markers during the exposure of the plate, or by writing before development with a black lead pencil on the edge of the film. The original plate itself remains the property of its maker, the radiologist, and should be kept in his possession, and copies furnished as needed.

The use of the radiograph in medical jurisprudence presents some difficulties. Only one accustomed to the daily examination of X-Ray negatives is competent to furnish a complete and critical interpretation of a radiograph. The surgeon should not attempt expert testimony based on a radiograph without the presence of the radiologist who made it, and knows the position of the tube and of the patient at the time the picture was made. The picture carries more weight in court with judge and jury when the radiologist is there himself to describe the exact conditions under which

the picture was taken. Only the one who made it can positively identify any given radiograph.

The speaker has on various occasions radiographed cases of so-called "railroad spine," and in none of these cases has he been able to identify any pathological changes in the vertebræ on the evidence of radiographs including the entire spine from the cervical region to the coccyx.

The neurologist may testify that the patient has a traumatic neurosis and really does suffer pain, but only the radiologist can witness as to the presence or absence of actual bony lesions. The speaker inclines to the opinion that most of the cases of so-called "traumatic neurosis" are due to the very common condition of sacroiliac subluxation. This condition is frequently seen by the railroad surgeon as the result of collision injuries to passengers or to members of the train crew. It comes as the result of being thrown suddenly forward or backward. Occasionally the radiograph will show a greater degree of separation of the ilium from the sacrum on one side than on the other. Most of the cases of this lesion, however, give an absolutely negative X-Ray finding.

One must be guarded in giving evidence based on the radiographic findings concerning a fracture. Seldom does legal machinery bring a case to trial promptly, and a radiograph is often required which shows the condition of the bones at the time of the trial. But it is difficult in some cases after the lapse of some months, to pronounce positively on the exact age and original characteristics of the fracture.

Ununited epiphyses may give trouble at the time of a trial, and present difficulties which result from a lack of definite knowledge as to the exact time of their normal union, although existing atlases furnish help in this direction.

There can be no doubt of the value of a permanent and accurate record of lesions about which hinges a cause in court. The radiologist is in no sense an advocate, and must consider himself always an agent of the court. He must prevent either plaintiff or defendant from making false claims based on his record. Nothing is easier to a man schooled in radiographic technic than to make skiagraphs which will distort the proper relations, and create false impressions as to the severity or the extent of the lesions. Nothing is more tempting to an unscrupulous attorney than to exaggerate the gravity of a lesion before a jury when no one is

present to explain that even apparently faulty bony apposition may give a perfect functional result.

It is rather safe routine for the physician's own sake to radiograph all fractures; and surely it makes possible far greater care on the part of the surgeon in securing apposition, and consequently fewer disabled limbs The radiographic evidence regarding a fracture into a joint would go far to absolve the surgeon from the charge of neglect, and possibly prevent a damage suit for the same, if the finding were made and the danger of this complication announced to the patient at the outset of treatment.

Very frequently the radiologist is approached by some patient who is a prospective plaintiff in a damage suit, and is solicited to furnish proof of personal injury causing permanent disability. It becomes a matter of great delicacy to decide how far the patient is entitled to this evidence, knowing the large number of unjust suits which are brought for personal injuries alleged to have been received. On the other hand an individual who has received an injury at the hands of another more or less permanently disabling him and curtailing his earning power, is entitled to remuneration therefor. Such an one has the right to obtain from the radiologist upon whom he calls the evidence of his injury. Refusal to aid in the pressing of an unjust claim is justifiable on the part of the radiologist as well as on the part of other medical experts. There can be no hard and fast rule laid down which the radiologist shall follow without variation, unless it be this, always to avoid being made the tool of an unworthy cause.

Some Views on Erythema Multiforme.*

By ISADORE DYER, Ph. B., M. D., New Orleans.

Even in such an objective field of medicine as dermatolgy, where the symptom complex is nearly always indicated by clear cutaneous evidences, problems arise which are difficult to set aside without long deliberation.

In the fixed groups of skin diseases, generally accepted in the arrangement of the terminology of medicine, skin diseases have been arbitrarily set out in divisions and sub-divisions, based upon the etiology, pathological anatomy and the predominant symptoms

* Read at the Meeting of the Mississippi Medical Association, Vicksburg, April 9, 1913.

in evidence. Among the divisions we find the general group of inflammations or exudative diseases, and in this group a number of types under the name of *Erythema Multiforme.*

Usually accepted *E. Multiforme* includes primary lesions, all having the common characteristics of bilateral symmetry, sudden appearance and like resolution, with a tendency to recurrence. These eruptions usually are purely inflammatory and in all but their vesicular and bullous types, the evidences fade on pressure, indicating the ephemeral character of the eruption and that, in such types, the evidences are not organized.

There is much dissatisfaction in the present classification of skin diseases; "unrest" might be a better word to express the feeling of students in dermatalogy. To such an extent is this true, that it is rather certain that some newer and better arrangement of the groups of skin diseases may be devised.

The confusion in terms requires a readjustment of the parasitic diseases, some of which are now classed as neoplasms; the inflammations, so called, act as the omnibus for all disease left over from the other groups, and it is hard to subdivide this group with any degree of clarity under the present system.

Already those diseases of essentially nervous origin have been grouped by Brocq as dermato-neuroses, and the end is not yet. When the newer classification comes, there should be some revision of the scope of the erythemas, which at present spread over three groups, the hyperemias, the neuroses and the inflammations, and of these *E. Multiforme* at present occupies a limited consideration entirely out of proportion to its importance.

We are every day meeting fresh evidences of the correlation of skin diseases with other organs, and the evidences locally may be the signals of profound general disturbances. To any one who has watched the direct association of toxins and the skin evidences of their effects, the broad range of eruptive expressions is noteworthy. While urticarial expressions are the rule, all of the phases of cutaneous manifestations may appear from simple hyperemias to necrosis.

So far these evidences of general disturbances reflected in the skin have not been sufficiently correlated and many clinicians are satisfied to bury all of them in the elusive diagnosis of anaphylaxis, leaving the explanation to those who have the most co-ordinated speculative minds.

We should not be satisfied with this, however, but should consider the various types in their relation to the division of eruptions, captioned as *E. Multiforme.*

When we do this, the way would seem clearer to the explanation of both the objective and the subjective evidences of these types of skin manifestations.

Every now and then the expression of a disturbed digestive apparatus is displayed by gastric disorder, a general nervous upset, and a variety of eruptions on the skin, at one time flashing out a flushed face, or swollen and reddened extremities; at another time the circulatory disturbances are more deeply impressed and wheals or other urticarial manifestations obtain.

Where particular articles of diet are at fault, for example a bad shell fish, and canned goods, the effect may be more prolonged and the symptoms of intoxination more varied If we carry the idea far enough, we begin to border on the consideration of the organized disorders believed to result from articles of diet established among certain races, or in certain occupations, among which beri beri and sprue are to be classed, and perhaps pellagra.

We know the direct evidences occurring in connection with prolonged use of salt meat and the deprivation of fresh fruit and vegetables, commonly known as scurvy, but carrying in its train the cutaneous disturbances manifest in some types of hemorrhagic eruptions.

If the simpler forms of skin disarrangement under intestinal disturbances are *Erythema Multiforme,* why should not the more complicated manifestations be likewise classified? The limitations are already purely arbitrary and the borderland at which the present erythema group stops and these other disorders begin is impossible to fix with any definition. With a broader survey of the field we can surely study many conditions with less prejudice and with more assurance of finding a factor of causation.

Let us take some of these conditions and try to analyze and work them out.

The eruptions occurring now and then among those who are susceptible to the peculiar toxins of fresh pork and veal are very much like the erythema group. The eruptions following the idiosyncrasy to quinine sometimes will assume all the characters of a hemorrhagic type of erythema.

The eruptions of accidental type following the use of the sera,

as diphtheria antitoxin, antistreptococcic serum, antitetanic serum, vaccinia inoculations, the eruptions accompanying influenza, and even some of the enteric fevers (typhoid and typhus) at times bear so much resemblance to recognized forms of *E. Multiforme* as to find place in this group, if the associated cause were not established. Why should they be separated?

The types of an eruption diagnosed as a dermatitis, or even organized eruptions as acne or eczema, subjected to vaccin treatment, may so change under such medication as to have no resemblance to the original eruption, sometimes developing into dangerous, rarely even fatal forms, of generalized eruptions having the cardinal qualities of *E. Multiforme,* which we have laid out in the beginning as bilateral, symmetrical and with a habit of grouping in arrangement peculiar to the group.

Even rheumatism, long continued or fulminating, may associate such cutaneous disturbances, on the one hand assuming variant forms of erythema, as *E. Nodosum,* or as peliosis rheumatica, usually classified in the division of the hemorrhages of the skin.

If a beginning intestinal disturbance may correlate the kidneys in the morbid picture so as to result in anemias, changes in the structural tissues of the skin and even involve that wonderful auxiliary functioning group of ductless glands, is it an extraordinary hypothesis to conclude that the skin may at all times act as a signal board for the irregular disorders traveling among the ranges of the sympathetic system?

We have not yet solved the problem of pemphigus, of psoriasis, of herpes, of pityriasis rosea, none of which even look alike, but all of which have in common a vague suggestion of an undercurrent of nervous pathologic origin.

Herpetiform dermatitis, sometimes called "Duhring's disease," and named after that Nestor in American dermatology, bears the imprint of a varied etiology, the highest expression of the physical unrest in modern civilization. In some of the variations of this disease, especially the bullous and vesicular forms, we hesitate in the desire to bring these into the group of *E. Multiforme,* because the postulates of the group of *E. Multiforme* are so well satisfied in the objective essentials of the discase as well as in the subjective symptoms.

While we are struggling to explain the problem of pellagra, the

whole picture of this disease makes it a highly organized form of the group we are discussing.

The theories of an insect origin, of a maize toxin, of a central degeneration, progressive in character, all are not antagonistic to placing the disease among the divisions of *E. Multiforme.*

As a matter of fact a diagramatic case of pellagra has all the characteristics of *E. Multiforme.* Beginning usually with a disturbance of the larger bowel, indicating an inflammatory disorder of the mucous lining of the whole intestinal tract, extending to the membranes of all the mucous cavities of the body, pellagra gradually proceeds to involve the mucous layer of the skin and, finally, the other membranes of the body, including the walls of the blood vessels and the meningeal membranes of the brain and spinal cord. The progressive symptoms are manifest in evidences in each organ in turn. Those on the skin show no difference, often, from any other toxic erythema, in the beginning. Even with the advancing involvement of the skin, all the way to actual hypertrophy and necrosis, the erythema persists in all stages and in all types as a marked feature of the disease.

In the concomitant changes in the reflexes and in the nervous system, pellagra has much in common with the more serious cases of *E. Multiforme* of toxic origin, and it is hard to tell the difference between pellagra and herpetiform dermatitis when the patient is in the lethargic stages of these diseases.

We plead, then, for a revision of the *E. Multiforme* group, broadening its definition so as to include the wide reaches of erythema traveling into the fields of neurology and the other associated organs, arguing observation and experience and begging the concurrence of those clinicians who see in the eruptions of the skin, more than a superficial expression of disease, so that sunburn and pellagra may be associated as extremes of the group, which in its middle ranges, sounds the alarm of a disturbed economy, embracing all the active and complementary organs of the body.

Clinical Reports.

Pituitrin as an Ecbolic in Seventy-Seven Cases.*

By MARION T. BENSON, M. D., Atlanta, Ga.

During the past ten months I have administered pituitrin† in seventy-seven cases included in my private practice. The following twelve cases fairly represent the different conditions encountered in the total number of cases treated:

Case No. 1. Mrs. O., age 28. Multipara, third child. I attended Mrs. O. during previous confinements, the first of which lasted 24 hours, and the second 16 hours. When first called to third confinement, found the patient had been in labor two hours, and I promptly administered 1 cc. pituitrin. The labor was finished in 45 minutes with normal presentation.

Case No. 2. Mrs. C., age 27. Multipara, second child. First confinement took place in another city and she reported difficult labor with forceps delivery. When first called to see Mrs. C. soon after she returned found her in highly nervous state, as she suspected pregnancy, and had been told by former physician that she might have great fears of subsequent pregnancies on account of difficult labor and symptoms of tuberculosis. A very careful examination failed to disclose pregnancy, but found a badly lacerated cervix, which I repaired. Within 18 months following this operation I was called and found the patient in the beginning of the second stage of labor, which had been progressing for about four hours. Upon arriving at the case, I administered 1 cc. pituitrin and labor was completed in 30 minutes without laceration.

Case No. 3. Mrs. F., age 23. Primipara. Gave 1 cc. pituitrin in first stage of labor, which was completed in two hours.

Case No. 4. Mrs. B., age 28. Primipara. Found the patient had been in labor 8 hours with os dilated about the size of a fifty-cent piece, pains regular but lacking in force. Gave 1 cc. pituitrin, followed by increased contractions, but not sufficient to bring about delivery. Gave second dose of 1 cc. pituitrin in one hour, but failed to produce contraction sufficient to complete the delivery, which was finally effected with the forceps.

Case No. 5. Mrs. J., age 30. Primipara. Very large and stoutly built. Had been in labor 14 hours, progressing similar to Case No. 4, with increasing pains, but not sufficient to complete the delivery, and forceps were applied.

Case No. 6. Mrs. S., age 23. Primipara. Patient first seen in second stage, when 1 cc. pituitrin was administered and labor completed in 40 minutes, everything being normal.

Case No. 32. Mrs. S., age 32. Multipara, fourth child. Patient seen in second stage of labor, with pains about every ten minutes with contractions of little force. Administered 1 cc. pituitrin with no increase in pains during a period of one hour, when 1 cc. pituitrin was again administered with little or no effect, and after a time pains stopped entirely. Out of the seventy-seven cases, this is the only one in which I failed to increase the oxytocic action.

Case No. 37. Mrs. H., age 22. Second confinement. I attended Mrs. H in first confinement, which lasted 36 hours, with forceps delivery. When first seen in the second confinement, patient had been in labor 5 hours, and I immediately gave 1 cc. pituitrin. This was during the second stage, and the child well up in the pelvis, but in 35 minutes the patient made normal delivery.

Case No. 70. Mrs. G., age 21. Multipara, second confinement. I

* Read at the Meeting of the Georgia State Medical Association, Savannah, Ga., April 16 to 19, 1913.

† Parke, Davis & Co.

attended Mrs. G. in her first confinement and made forceps delivery after she had been in labor 24 hours. When seen in second confinement the patient was in second stage of labor, with child well up in the pelvis, and normal delivery was completed in 35 minutes.

CASE No. 73. Mrs. H., aged 40. Multipara, eighth confinement. Upon arrival I found patient in second stage with child well lodged in pelvis, pains every 10 minutes, and after giving 1 cc. pituitrin, child delivered in 20 minutes.

CASE No. 74. Mrs. M., age 36. Multipara, seventh confinement. I attended Mrs. M. in two previous confinements When first seen during present labor, she had been having slight pains, with severe pain in back for three or four hours Found os dilated, but no regular uterine contractions. Gave 1 cc. pituitrin and in 10 minutes pains were regular every 3 to 5 minutes, but not sufficient to bring about delivery. After waiting 1½ hours, gave 1 cc. pituitrin, and labor was completed in 30 minutes.

CASE No. 75. Mrs. H, age 30 Multipara, third confinement I had attended Mrs. H. on one previous confinement. When first seen during present labor, found patient had been having slight pains for about two hours, cervix dilated, but pains not sufficient to complete delivery. Gave 1 cc. pituitrin and in 20 minutes labor was completed.

The value of pituitrin in obstetrical work is amply demonstrated in the last two cases reported, and indicates a more pronounced oxytocic action in the multipara It is the only remedy that I have found which can be depended upon in preventing serious complications. Before adopting the use of pituitrin I sat many nights waiting for pains to appear after the cervix began to dilate

These cases, especially the multiparæ, were not only a source of worry and vexation, but required a great deal of the valuable time of a busy physician, as it was not safe to leave them for a sufficient length of time to attend to other professional duties. The administration of pituitrin seems to close that gap of time intervening between the true onset of labor and the final stage of delivery, which has frequently caused unnecessary loss of time to the physician and a waste of force and energy on the part of the patient.

The prompt and decided action of pituitrin in the average case is nothing short of wonderful. Of the total number of seventy-seven cases referred to, twenty-seven were primiparæ and fifty multiparæ. Of the 27 primiparæ 14 cases had normal delivery and in 13 cases forceps were applied. Of the 13 cases of forceps, the pains were increased by the pituitrin to a very marked degree, but not sufficient to complete labor, and seven of the number were abnormal presentations.

Of the fifty multiparæ cases, pains were increased to a very marked degree, with one exception. Forty-four were delivered in 20 minutes to 2 hours. In six cases forceps were applied, three of which were abnormal presentations.

Not only is pituitrin of great value during labor, but leaves the patient in much better physical condition after it is completed. Also, the child seems to be in better general condition. Whether it is due to rapid delivery or to the effect of pituitrin upon the heart, I am unable to say.

In the multiparæ cases very few had after pains and where they were present, did not last more than 10 to 14 hours I have further noted that the uterine contractions remain more permanent and the lochia flow quite normal. Since beginning the use of pituitrin I have entirely discarded ergot and have not had but one case of hemorrhage in the entire experience, which was controlled promptly by packing the vagina with cotton tampons. This case followed a forceps delivery, and, when once controlled, the hemorrhage did not return.

In administering pituitrin it is important to use a fresh preparation, and the syringe must be free from particles of any other substance, particularly alcohol, which seems to interfere with the action of pituitrin. I find better results following the subcutaneous injection well under the skin in the gluteal region, not in the muscles or fatty tissues It is also important not to give chloroform before the child's head is pressing upon the perineum, as its early administration retards the action of pituitrin, delays labor, and necessitates a second injection.

Report of a Cesarean Section.

By L. G. STIRLING, M. D., Baton Rouge, La.

The Cesarean section is not an operation that in itself presents any very novel features, but I am led to submit a report of a case, occurring in our local practice, because of the peculiar condition which compelled a resort to this extreme measure.

The subject of this report was a sexiparous married woman, thirty-two years of age, who engaged me to assist at her seventh accouchment, which from the information received was expected about the twenty-third of August.

Having attended five of her former confinements, I knew three of them to have been accompanied by much difficulty. Podalic version had been, on two of these occasions, resorted to after failure to deliver with forceps, and the sixth delivery was only made possible by the use of the forceps. After the birth of the fifth child,

the mother had to be taken to the Charity Hospital and operated on for the repair of extensive cervical and perineal lacerations then existing.

For some months before the birth of the sixth child it had been observed that the patient was afflicted with a remarkable development of varicose veins, extending up the legs and thighs, and all over the labia and the vaginal canal, and even the cervix seemed surrounded by a mass of redundant tissue and dilated veins. After that delivery had been effected (as I have just said, with forceps), she suffered a very considerable loss of blood which came, apparently, from the lacerated and contused tissues in and about the cervix, but the patient's recovery from this labor was uneventful, and the varicosities disappeared in a short time.

In the course of an examination preliminary to the seventh confinement, it was discovered that the varicose veins were developing as before, and that there was considerable cicatricial tissue in and about the cervix. An elastic thigh stocking gave some relief to the condition of the limbs, but when the patient approached her labor it was apparent that the cervical and vaginal condition was much worse than at the preceding birth, and I was keenly sensible of the probability of serious difficulties.

The labor pains commenced, slight and at long intervals, on the evening of August 24, and at about nine or ten o'clock p. m., the nurse in attendance notified me that the patient was losing a considerable amount of blood, although the pains were still very slight.

A careful re-examination at that time rendered it certain that the blood loss was from the dilating cervix, and that it was not a case of placenta previa. In view of this fact, a vaginal pack was inserted. This controlled the hemorrhage, but it also had the effect of stopping, entirely, the contractions and pains of labor. After this, for the next thirty-six hours, the pack was alternately removed and replaced, for the reason that without the pack the patient bled profusely and unceasingly, and when the pack was present the process of parturition was suspended. During this period efforts at digital dilatation of the cervix were made, but these caused such extreme blood loss that they were discontinued.

At this time Dr. R. C. Kemp was called in consultation and was harmoniously associated in the entire further conduct of the case. He and I, upon examination, thought that the loss of blood was decreasing, and agreed to continue the same plan of treatment for

a while longer. By the next morning, however, no favorable change had occurred, so we removed the patient to the sanitarium. At this time we considered Cesarean operation, but having brought to a successful termination such difficult deliveries, *per vias naturales,* in this patient, we concluded to try the forceps first.

The woman was, accordingly, anesthetized and rapid digital dilatation of the os effected, and Tarnier's forceps applied. However, exerting all of the force at our command, we were unable even to engage the head, and the hemorrhage resultant upon our efforts was such as to compel us to abandon this means of delivery, and resort to abdominal section as the only means of saving the mother. So, after thorough preparation, the operation of Cesarean Section was performed, and a living male child delivered.

From the time that "Macduff was ripped untimely from his mother's womb," or from the time that, according to rather doubtful tradition, the great Caesar was delivered by the operation which took his name, the delivery of a child by abdominal section has been a well recognized operation. However, in former times this was a proceeding which was only resorted to when all hope for the mother's life was abandoned, and even since modern surgery has made it practicable to save both lives in such operation, it has still been resorted to very seldom when the child could be delivered through the usual passage. In the instant case, we feel sure that the child could have been delivered by podalic version, through the natural channel, had not this excessively varicose condition rendered it certain that so terrific a blood loss would have accompanied that method as to result in the certain death of the woman. In other words, it was a case which did not present, we believe, any unsurmountable obstacle to delivery *per vias naturales,* but which made such delivery fatally dangerous to the mother.

I have not made a complete search of the literature on the subject, but so far as I know there has not been another operation of the kind made necessary, on a multiparous subject, by this varicosity of the vagina and cervix, and it is because of this fact that the operation was provoked by so different a condition from that which ordinarily results in a Cesarean Section, that I have regarded it as worthy of report.

To complete the record, I will state that, at this writing, a year and a half after the operation, both mother and child are in good health.

Orleans Parish Medical Society Proceedings.

Meeting of April 14, 1913.

Medical Experts.

(Abstract of Address.)

By Victor Leovy, New Orleans.

The speaker expressed his pleasure at being able to say a good word for the Medical Expert, in view of the sensational journalism which had been referred to by the chairman. He explained that all expert evidence is subjected to this kind of attack, and that as such evidence comes from every trade and profession it must be plain that the attacks upon it are greatly exaggerated. He suggested that the prominence of medical testimony in the public mind is due to the fact that it is chiefly given in cases of crime and accident, which are always interesting to the public and are specially interesting just now to the sociologist for the reason that the jurisprudence on these subjects is rapidly changing. The speaker predicted that with the growing disposition to treat both crime and negligence from a scientific view-point the bitterness in such cases would continue to grow less and the position of the medical expert more pleasant.

While alluding to some cases of a class that warranted severe criticism the speaker expressed his hearty appreciation of the fairness of the medical witnesses as a rule and his belief that it would grow even more satisfactory. In referring to the points upon which improvement might be possible, he suggested that in his belief answers could often be given from a less rigidly scientific standpoint; and that the opinion of the witness could be more freely expressed on certain points, for instance as to the genuineness of so-called subjective symptoms; that too great caution and reserve in expressing such opinions often led, undeservedly, to an appearance of lack of frankness.

Mr. Leovy expressed his appreciation of the opportunity to address a body of physicians and his hope that a return delegation might be sent to some early meeting of the Louisiana Bar Association.

Meeting of March 10, 1913.

Dr. M. S. Shlenker exhibited the following two cases of

(1) *Rudimentary Uterus,* and (2) *Specimen of Carcinomatous Uterus.*

Case 1. Ida V., colored, aged 16. Father and mother well developed with negative family history. Mother had three children: two girls and one boy; one of the girls died early in childhood.

This young girl was brought to me by her mother to determine why she had never menstruated. Her general health has always been good with the exception of late she has been complaining of pains in her lower abdomen, usually accompanied by headaches. These pains do not recur with any regular periodicity. Her bowels are regular and she suffers with no vesical or gastric disturbances. She has never menstruated or given any evidence of it.

Examination: She is well nourished, weight about 135 pounds above average of her class in intelligence, her breasts are very large and well developed. Her pubis is well covered with hair and the labia both minor and major are perfectly formed, as is the clitoris and urethra. On vaginal examination the hymen was found intact. We find the vagina here a blind pouch about one and a half inch in depth, admitting one finger with ease. There is no evidence of an orifice or cervix. By rectal palpation almost the entire vagina can be everted showing that there is but a very slight connection, if any with the organs above. As the finger enters higher up in the rectum one can feel with the hand on the abdomen a fibrous band the size and thickness of an ordinary tape reaching from either side with a central prolongation reaching towards the vagina. Occupying the position where the uterus and tubes normally should be situated, and giving the impression that nature had made an effort in the formation of an uterus. With a sound introduced into the bladder it can be readily palpated by the finger in rectum evidencing that there cannot be any well formed body interposing. Upon investigation I find that the congenital absence of the uterus is only found in monstrition and the case just presented belongs under the classification of a Rudimentary uterus.

Case 2. *Specimen of Corcinomatous Uterus:* Mary J. K., aged 35, colored. Married 15 years, and has had one child and one abortion. Her menses began at 13 years of age and she has always been regular up to the past two months when she has menstruated several times each month.

In September, 1912, she began to notice a foul smelling, vaginal discharge and in December of the same year she says she felt a growth or swelling within the vagina. She now complains of pains in the lower right side of the pelvis. Her weight has diminished, though her appetite continued good. Her bowels were constipated and at times her food nauseated her.

Examination: The patient is fairly well nourished, though of a slight build. Her mentality is some what dificient, consequently a more complete history could not be elicited.

Vaginal Examination: Vaginal outlet normal. With the examining finger a mass is felt situated on and occupying the posterior cervical lip, cauliflower like in character and encroaching upon the internal os. The growth bleeds readily on palpation and gives one the idea that it is a hypertrophied cervix or cervical polyp. There were no palpable pelvic

glands and the uterus was freely movable, making the case an ideal one for a radical operation. Urine normal.

Operation Februray 14, 1913, ether narcosis. Complete extirpation of the uterus, with the adnexa, isolating the uterus from the pelvic brim to their insertion into the base of bladder and removing all the para-metrium and glands, with a large part of the vaginal vault, as shown by this specimen, after the method of Wertheim.

The right ovary, you will observe, is somewhat hard, and suggests the possibility of a metastasis, and the left one is decidedly cystic. The tubes are apparently normal. The appendix was markedly large, and a condition not unlike metastasis was present, and it was also removed, but, on microscopical examination, showed that it was purely a chronic inflammatory condition. The microscopic diagnosis of the growth was adenocarcinoma of the cervix. This patient made uneventful recovery and was up and about within ten days, and left the hospital within two weeks. From the early diagnosis and operation of this case I anticipate a very favorable and permanent result.

Discussions.

Dr. Dempsey: Five or six years ago I had this patient for bronchitis, with slight pneumonia. I noticed that she was very backward, and somewhat infantile. No vaginal examination was made.

Dr. Asher: Similar cases were reported by Drs. Gelpi and Kostmayer at the last meeting of the State Society.

Dr. Groetsch: This is the third case of this kind that I have seen. One case was a white woman, aged 24, well developed in every way, but had never menstruated; otherwise normal. Sexual desire was strong, and she came to the hospital because she was to be married and desired to have the anomaly corrected. Examination showed no sign of internal genitals.

Dr. Genella: This is a mixed type, presenting evidence of stygmata of degeneration. There is some evidence of pituitary disease, either hyperpituitarism or hypopituitarism. This patient gives a history of being normal up to ninth or tenth year. Then she developed hyperpituitarism, then hypopituitarism, then she reverted to the former. X-ray work on her sella turcica would be interesting. The girl has prognathic jaws, especially the lower. She will probably develop further signs of pituitary disease later. In the male there would probably be the tendency to rape.

Dr. Maes: Experimental work has been done by Baldwin in three or four cases by making a vagina from a loop of intestines.

Dr. Shlenker (closing the discussion): The cases of Drs. Gelpi and Kostmayer were cases of atresia or septal deformities, not developmental abnormalities or absence of organs. Here there is no evidence of uterus, tubes or ovaries. It is a very rare case. I know that the removal of a part of the pituitary body affects body development. I am not familiar with influence of pituitary bodies on the genitals. I have seen repairs attempted with poor results.

Dr. O. W. Bethea presented *A Device for Holding the Sheet in Obstetrical and Gynecological Work.*

This little device is so simple that I feel like apologizing for taking up your time in presenting it.

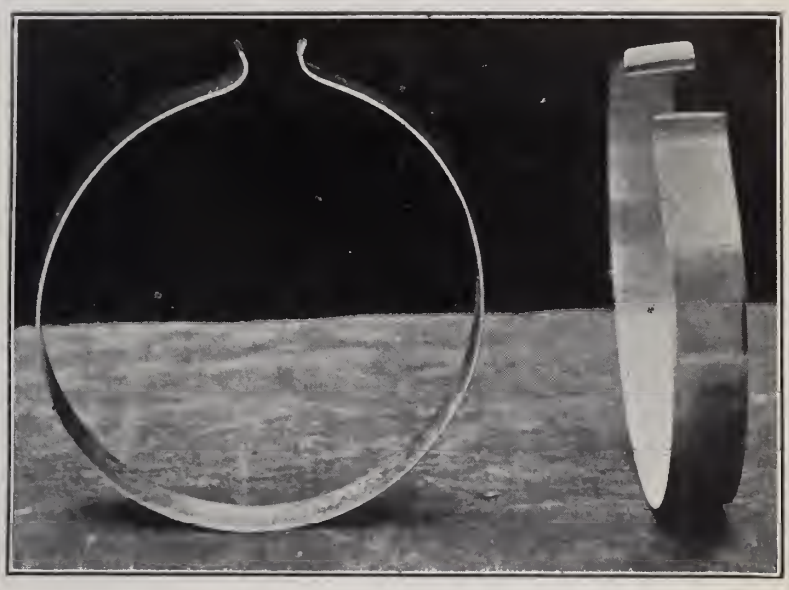
In obstetrical and gynecological work there are few things that give more annoyance than the drapery used to protect the patient. In those making maternity cases, where we do not have the advantage of sterile linen and trained assistance, our time is often fairly well divided between rearranging the sheet, recleaning the field and our hands, and attending to the normal processes of labor.

The advantage of these holders is not only that they prevent too much sheet, but too little. The patient is unable to kick out from under the covering, to her own and the family's embarrassment. The patients seem almost as appreciative of the device as those of the profession who have seen them in use.

The appliance consists simply of a pair of plain polished elastic bands forming an incomplete circle, somewhat after the style of the old bicycle guards used to hold the bottom of trousers. They are curved out at the ends to prevent pinching.

After the sheet has been arranged the holders are opened and placed around the thighs near the body. If sterile sheets are used, the holders should, of course, be sterilized. There is not much tension on the sheet, and I have seen them used through a second stage of labor of two hours' duration without requiring readjustment.

I have had the holders made by the Frank S. Betz Company and Kny-Scheerer, and understand that they are putting them on the



Illustrating Dr. Bethea's Article.

market. As they are not patented, the price, of course, is reasonable. The pair here shown was supplied by the Betz Company for about one dollar, and each time that I have used them I have felt that they have more than repaid me in peace of mind and conservation of temper.

Discussion.

Dr. Gessner: I have found these appliances very convenient.

Dr. Dempsey: I use a simple method of making a loop over the knees with napkins after draping the sheets. This works very well and gives the patient something to pull on.

Dr. Shlenker: I find the appliance very good, especially during the latter stage. It is not so useful in prolonged labor. I use the stocking, which is very good.

Dr. Bethea (in closing): The appliance is especially useful in the home, and more especially in emergency cases. It has been suggested to couple them with a strong copper wire. I have also considered having them put on the market in three pieces, flanged. This apparatus could be more easily carried and sterilized.

Discussion of Dr. H. D. King's Paper on Importation of Foundlings.

Dr. Genella: I wish to report regarding some of these cases, especially from the point of view of eugenics. Some children were picked up in the New York streets during riots six or seven years ago. Two were adopted into a certain family. The foster-father was a gambler and a morphinomaniac; the foster-mother was a morphinomaniac, and had been a prostitute, while the caretaker of these children was a whoremonger. I endorse Dr. King's paper.

Dr. Asher: I agree with Dr. King, that people here should adopt children from local asylums.

Dr. Fossier: I recall two cases of children adopted from local families—one, a young girl, adopted by a poor family; one by a rich family. Both had positive Wassermann reaction. The foster-parents desire children from a distant city so as to get as far as possible from their parents. This can only be stopped by education of the public.

Dr. Groetsch: According to the Louisiana laws, any adopted child can be reclaimed by its parents; hence foster-parents get these children from distant places.

Dr. Genella: The adopted child cannot stand in the way of legal heirs.

Dr. Seemann: My impression is that when a child is adopted in a court of record it is binding, but if before a notary the adoption can be set aside. The name cannot be changed except by act of Congress, but the name of the new parent can be added to the child's name. Children are adopted from a distance in order to avoid their being reclaimed by their parents, and also to avoid a stigma of being a foundling and to avoid blackmail. I agree with Dr. King on the economic questions involved. Many of these children go into wealthy families. Some do not, and are soon made bread-winners. The supervision should be exercised longer than it is. Regarding the medical aspects of the subject, there is the same danger in adopting children from any location.

Dr. Dempsey: It is a question of education of the public. Requisitions are drawn for these children hence the blame lies with our people. We should educate them regarding the danger. I have treated three such children. One was adopted by a woman with a drunken husband. The child is now seven or eight years old and presents all of the marks of a criminal. In the second case, the child was adopted by a man of fifty-two and a woman of thirty. It developed tuberculosis at nine, and died in four or five months. In the third case, a four-year-old girl was adopted by a couple married twelve years, in good financial standing. The child is now about seven and presents all the appearances of a negress.

Dr. Gessner: Dr. King's views are not broad, and I dissent from them. The children are demanded by people here. They are charges of good people, who try to dispose of them in sections of the country where the population is not so dense. This is a good move. The fact that this is done year after year shows that there is a demand, and we should not go on record as being opposed to it. Dr. Seemann's point about the medical aspect of the question is well taken. If the New Orleans institutions do not place children in families they are backward and slow.

Dr. Durel: The system is at fault when children are placed in families not able to take care of them. Local institutions do not place foundlings, as they are more careful regarding the families in which they are placed. A young girl adopted a boy recently from a local asylum, and the child was taken away later, as she was not looking after it properly.

Dr. Gomilla: Most of the local asylums, especially the Catholic ones, require that the mother of the child be known and recommended to them. No child can leave except on adoption by a well-recommended family, and the children are frequently visited after leaving. Hence, children adopted from local institutions make better citizens. I know of one family which adopted a child from New York, and the father can barely support it. One reason for adopting children from a distance is that most families do not want it known that they are adopted.

Dr. Genella: Some of the children that come here from New York are not provided for until they get here.

Dr. Groetsch: I desire to protest against some of Dr. Durel's remarks, as we do not know the rules of the New York Institutions.

Dr. Gessner: I know a few New York children who are well taken care of here.

Dr. Seemann: The New York institutions keep a man in this territory whose duty is to look after these adopted children.

Dr. King (in closing): In answer to Dr. Genella, I would say that he should report to the authorities the condition he describes. Regarding the legal aspects, it is true that once a child is legally adopted before a court of record it is an heir, but it can be restored to its parents by litigation. One of our judges told me that many of these cases are tried in chambers, in order for the families to send these children back to the institutions.

I have looked up the laws of many Southern States which have prohibited importation of foundlings. They are being sent more and more to the Southern and Western States. It is not a question of the present so much as it is a question of the condition of these foundlings when they become adults. The report from Pennsylvania is that most of the criminals of that State were foundlings. The greatest foundling hospitals are in Italy and Russia. From one of the Italian hospitals I got the report that, up to 1901, 55 per cent. died before the age of three. This mortality has been reduced to 29 per cent.

A foundling is handicapped by many things, such as lack of motherhood, artificial feeding, etc. The object of this paper is to call attention to the subject and this danger. I think the danger, from a medical point of view, is less in the case of the children from local institutions. The city would be rid of a burden if people would adopt local foundlings instead of those from New York.

Discussion of Goiter (Dr. Lemann's Paper).

Dr. W. D. Haggard, of Nashville (guest of the Society): There seems to be some ground for thinking that soil changes may have some influence on goiter. A writer from India tells us that goitrous springs are rendered inocuous by boiling the water. Regarding exophthalmic goiter, we must take into consideration complexity of modern civilization. In mild or early cases I think it best to reduce the blood supply of the glands by ligating either one or both poles. This gives excellent result in early cases. We should regard all cases as potentially severe. Surgeons usually get the very severe cases, as in the beginning of appendiceal surgery. As a general rule, the operation should not be performed at once in desperate cases. I think these cases could be nursed until they get to be fair surgical risks, and then the graduated, or step, operation of Mayo can be done. I do not think it advisable to operate when the patient is getting worse. Subacute cases that do not improve under medical treatment should be operated on. We should take early cases, treat them promptly, and we can thus restore them to well-being.

Dr. Eustis: The question of goiter is a most interesting one, and the Society is fortunate in having present to-night Dr. Crile and Dr. Mayo, who have done more than any one else in this country towards clearing up many points regarding goiter.

In speaking of goiter one must bear in mind the simple hypertrophic goiters without constitutional conditions, and those cases of Grave's disease with or without serious constitutional symptoms. The latter type of goiters especially interest the internist, and, from the limited experience which I have had, are to be classed as surgical cases, as I have yet to see drug therapy cure this type. However, Dr. Mayo has overlooked the large number of cases who refuse surgical interference and for whom something must be done by the internist. Bearing in mind that the thyroid gland secretes some substance, supposedly iodothyrin, which presides over nitrogenous metabolism, and that administration of extract of thyroid increases proteid catabolism, one can understand how increased activity of the gland can be produced by increased demands upon it. With this idea in view, a low proteid diet was given in those cases which were treated medically by me during the past few years. I have found that the tremors are lessened and the pulse rate in a few instances retarded

by such measures. Regarding the tremors as evidences of tetany, these results can be explained by the experiments of Berkeley and Bebe *(Journal Medical Research,* 1909), who showed that the specific toxin of tetany is caused by the decomposition of albumin, and that the experimental tetany which they produced in cats was much more readily produced, and the symptoms were much more violent when the animals were fed on an exclusively flesh diet. A point of therapeutic interest in their experiments was that the administration of calcium salts retarded the symptoms, and with this idea in view I have given calcium lactate to a few patients afflicted with Grave's disease, but the cases are too few in number to draw any definite conclusions.

Dr. Joachim: The ear, nose and throat specialist sees more cases than the general practitioner, most of them of the adolescent type. They present other symptoms besides goiter. The heart complications are present before the eye symptoms. We have more cases now than formerly. According to Crile, the cause is lessened iodin ingestion. The number of cases here do not seem to be lessened by our new water supply, but this has been in use too short a time to produce results. Goiter may be due to toxins present in the waters of the post-Jurassic geologic period. Many cases get better under medicinal treatment or simple rest and diet; others require operation.

Dr. Fossier: Patients are often treated by internists after operation. We have had gratifying results in many cases after surgery failed. We do not rely on one drug, and we should not decry drugs. The various results of different men often depend on the skill of the men. An enlarged thymus often accompanies an enlarged thyroid and gives the same symptoms. The thymus is often enlarged in adults, and can be radiographed and can be reduced by X-ray treatment. We often get intrathoracic enlargement of the thyroid, which can be distinguished from the thymus only by the microscope. Dr. Lerch has proved that the thymus often persists and can be percussed.

Dr. Lemann (in closing): After Dr. Mayo's remarks I would say that surgery attacks this vicious circle at one point and breaks it. The internist can break it another point. Many eminent medical men report so many cures observed for many years that we must credit the internist with curing many cases. Another point to be considered is the unknown origin of the disease. In the

future we may find a cause. It is unfair to compare goiter to appendicitis; there is no analogy. Appendicitis is a local and mechanical disease; goiter is a general constitutional disease, with local manifestations in the thyroid.

The National Association for the Study and Prevention of Tuberculosis, Washington, D. C., May 9, 10, 1913.

Reported by WALLACE J. DUREL, M. D., New Orleans, La.

Before the Sanatorium Association section the nitrogen gas or compression was discussed, bringing out the following facts:

That complete compression of the lung could be gotten only in a small percentage of cases (due to pleuritic adhesions), and the complete compression was attended with certain very unfavorable sequelæ, such as large pleuritic effusions, empyema and emphysema, with disturbances in the anatomical relations of the visceral organs, especially of the mediastinum and diaphragm.

Displacement of the heart, or tearing of pericardial adhesions, have been followed by immediate or sudden death. Intestinal disturbances and diaphragmatic disturbances have also followed the injection of large quantities of nitrogen gas.

The manometer does not seem to be an absolute index, indicating with certainty when the gas is injected in the pleural cavity, or when it is injected in a lung cavity, or when it escapes through a connecting fistulous track, making its exit through a bronchus, and thence through the mouth. As much as 7,000 c. m. of gas were injected, and the failure to compress the lung with such large quantites was accounted for by the above.

Pleural shock seems a great danger following the injection of nitrogen gas in the pleural cavity, and this has appeared when small quantities were injected. It seems safer, however, to inject small quantities at a time, and to repeat this until a fair compression of the lung is gotten (250 to 275 c. m. better and safer than 1,500 or more c. m. of gas injected at one sitting).

In hemorhagic cases the compression method does not give the brilliant results it was expected to give, for it is very often impossible to know which lung is bleeding and which to compress.

The most serious sequelæ following compression are sudden death from pleural shock, or displacement of the visceral organs, and the

appearance of new lesions in the opposite lung—a very severe complication.

It is better to give the gas heated to 100° F., and to inject only when manometer registers (plus 3 to plus 5); also to inject gas very slowly. X-ray does not seem absolutely necessary for the proper administration of the gas. The method of lung compression with nitrogen gas, for the present, seems best indicated in those cases of pulmonary tuberculosis where everything else has been tried, and perhaps also in a few cases where there exists a rapid progressive lesion on one side. It should not be used in incipient pulmonary tuberculosis or in moderately advanced cases.

The classification of cases on examination was adopted as follows: Incipient, moderately advanced, far advanced, acute miliary tuberculosis.

Classification of subsequent observations:

Apparently Cured—All constitutional symptoms and bacilli absent for two years.

Arrested—All constitutional symptoms and bacilli absent for six months.

Quiescent—Absence of all constitutional symptoms, bacilli present or not; physical signs stationary or retrogressive (all to have existed for at least two months).

Improved.

Unimproved.

Died.

The value of autoinoculation was well discussed, and shown to be two-edged, for it is impossible to determine when to stop or when to increase exercise thus given, the proper autoinoculative doses of bacterial toxins.

Autoinoculation seems to be a method of doubtful value, and dangerous, as shown by statistical results of several speakers.

The importance of not reporting cases the same year of discharge was also discussed. All cases should be reported as to their stages, and the number of cases treated given according to their stages, so also giving the results accomplished according to their condition upon discharge, and condition upon admittance or acceptance.

The question of neurasthenia was discussed and finally condensed to the practical fact that neurasthenia is often a primary indication of incipient tuberculosis and is not recognized as such.

In a paper entitled "What Became of One Group of Cases," Dr.

Bullock and others attempted to show the value of high altitude. They reported 75 cases treated out West in high altitudes, placing the following figures on record: Incipient, 92 per cent; moderately advanced, 84 per cent; far advanced, 32 per cent. The following results were placed as evidence contradictory to the above, showing that high altitude is not an essential factor for the accomplishment of results as reported by the Western (high altitude) advocators: Eighty cases treated in Louisiana: Incipient, 100 per cent; moderately advanced, 93.7 per cent; far advanced (1909), 46.7 per cent; 1912, 40 per cent; acute miliary tuberculosis, 0 per cent.

Dr. Solis-Cohen, in the discussion of the above cases, brought out the fact that both of the results accomplished in the West and in the South were probably due to the fact that the physicians treating these cases were advocates of small doses of tuberculin vaccins (.00,000,05 m. g.).

The neutrophile index was then discussed as a guide for the administration of the tuberculin vaccins, as shown by the clinical evidences upon which these conclusions were based.

In the pathological section the question of anaphylactic reactions and conditions was discussed, and the fact brought out that several saprophytic and bacterial proteins caused anaphylactic changes in the animal, but never to the same extent as the anaphylaxis produced by the protein of the tubercle bacillus. This showed, on a clinical standpoint, that the bacterial proteins will not cause the same reactions in the tuberculous as the tuberculin proteins as determined by the Von Pirquet test.

Dr. Duval's leprosy bacillus somewhat brings out the probability, for the above was discussed, but nothing definite has been proven as yet.

Cervical adenitis was shown not to be such a mild condition as looked upon previously, and it was thought that more attention should be given to the care of cervical adenitis.

The report on hospitals showed how little had been done for the protection of the non-tuberculous in these general hospitals, and suggestions were offered to that end.

N. O. Medical and Surgical Journal

Editorial Department.

Chas. Chassaignac, M. D. Isadore Dyer, M. D.

International Congress on School Hygiene.

The Fourth International Congress on School Hygiene will be held in Buffalo, August 25 to 30 next, under the patronage of Hon. Woodrow Wilson.

A comprehensive program is being arranged to cover the entire field of school hygiene, including both scientific and commercial exhibits. The social events planned are receptions, a ball, a pageant in the park and excursions to the neighboring industrial plants and to Niagara Falls.

This is the first congress of the kind meeting on American soil, and it is hoped to make it of benefit to each individual community. To this end it is desired and desirable to bring together as large a number as possible of men and women interested in improving the health and efficiency of school children.

Delegates will be received from colleges and universities and other educational, medical and hygienic institutes, but membership is open to all persons interested in school hygiene on payment of a fee of $5 and application to Dr. Thos. A. Storey, College of the City of New York, who is secretary-general. Dr. Chas. W. Eliot, emeritus president of Harvard University, is president of the congress.

We hope that many of our physicians and others interested in promoting the welfare of the school children will arrange to attend. The date is conveniently during vacation time. A pleasant and profitable trip may be counted on.

The general subject of school hygiene is comparatively new in this country, and therefore the interest in such a congress must be of gradual education. True, a national association for school hygiene has existed for some years, but its scope has not yet reached the practical stage.

With the broadening purposes of State Boards of Health, engaged in educational propaganda, and with the independent organi-

zations for child welfare, the need of the study of school hygiene will become a paramount question.

Not only is the field one covering the disease side of school life, but educational, psychological and physical phases are included. Even the broad field of eugenics is touched in the borderland of the present fields of study of school hygiene.

The Buffalo meeting contemplates the gathering together of all sects of people interested in the child. The several States have formally delegated representatives, and institutions of educational position and importance will likewise be represented.

Altogether, the congress, promises great import, and in commending its purpose the JOURNAL urges all who can to attend, in the interest of one of the most prominent sociologic questions of to-day, viz: the status of the child in society.

The American College of Surgery.

At the time of the meeting of the Congress of American Physicians and Surgeons, recently held in Washington, D. C., a crystallization of an American College of Surgery was effected.

For some time the discussion has been going on as to the desirability of establishing an academic body in this country of the same importance as the Royal College of Surgeons in Great Britain. The opinion has long prevailed that the surgeon should be qualified before he takes the responsibilities involved in surgical practise, and the temerity with which the young graduate undertakes the more rational surgery has been a large factor in molding opinion. The best sentiment has prevailed in getting the ideas together for such a senate of surgery, and the organization has been inaugurated by the creation of a set of founders who are instructed to proceed with the plans for a general incorporation of the purposes of the American College of Surgery. With an organized and accepted body empowered by public opinion and tradition to bestow the hall mark, hereafter any surgeon who is capable may qualify so as to carry such recognition.

The possibilities of this movement can only be summarized; but at this early date we can see the likelihood of a general board for the proper recognition of all graduates in medicine, through which the men graduated from first-class colleges may appear before a

highly accredited body, and may obtain a diploma which will need no revision at the hands of local boards. In other words, such a movement is bound to make for the recognition of high standards, which will make a reciprocity among similar national bodies in all countries not only possible, but the rule.

The successful inauguration of the American College of Surgery will be assured with the initial personnel, as shown in the following officers and Board of Regents, elected at the Washington meeting: President, J. M. T. Finney, Maryland; first vice-president, W. W. Chipman, Quebec; second vice-president, Rudolph Matas, Louisiana; treasurer, A. J. Ochsner, Illinois; general secretary, Franklin H. Martin, Illinois.

Board of Regents—J. M. T. Finney, Maryland; A. J. Ochsner, Illinois; Franklin H. Martin, Illinois; George E. Brewer, New York; George E. Armstrong, Quebec; John B. Murphy, Illinois; Edward Martin, Pennsylvania; E. J. Cotton, Massachusetts; Herbert A. Bruce, Ontario; C. F. Stokes, Washington, D. C.; William D. Haggard, Tennessee; George W. Crile, Ohio; Robert E. McKechnie, British Columbia; Charles H. Mayo, Minnesota; Harry M. Sherman, California.

The Medical College as an Asset to the State.

The State has at all times demanded citizenship of its medical men whenever disease threatens either from within or from without the State.

No phase of human life, varying from the normal, escapes the regulation of the State, and, where the State is properly organized, births and deaths are recorded, with the regulation of marriage by license also entailed. In some States the regulation of mariage is further governed by medical supervision of the contracting parties, who must be certified as in good health.

Foods and drugs, and the purity of these, as well as their use, are regulated by the States, and the regulations are enforced by State authorities, usually in the office of a Board of Health.

Practically all States regulate the practise of medicine and define the qualifications of the practitioner. In many States the standard by which all of these regulations are fixed is derived from

a State institution of learning, usually the college of medicine in the State.

As yet Louisiana has given no recognition to the medical college of the State, that of the Tulane University of Louisiana, further than its co-operation under State law and its early support under State endowment (1847-1878).

The Medical Practise Act was promulgated without reference to or consideration of or for the Tulane College of Medicine, and no medical laws have been enacted which have taken the Tulane Medical College into consideration, excepting the constitutional amendments which fixed the obligation of the Tulane Faculty as visiting physicians and surgeons at the New Orleans Charity Hospital, and which defined their relation thereto.

Since 1834, however, the Tulane Medical College (formerly the Medical College of the University of Louisiana) has occupied a large part in the public service of the State, first by supplying the graduates of this college for the practise of medicine in the State, opening its laboratories for the investigation of milk and water supplies, and more recently by establishing a School of Hygiene and Tropical Medicine, including Preventive Medicine, supplying a place and opportunity for studying diseases and conditions in the State, neighboring States and in the tropics.

The far-reaching possibilities are not yet appreciated, but already some of the way has been opened.

The investigation of the malarial organism and its growth outside of the human body by Bass is epochal in its importance.

The work of Wellman and Bass in beriberi experimentation promises to relieve rice of the burden of accusation as the cause of this disease, in that one problem alone, worked out in the Tulane laboratories, relieving a commercial asset of Louisiana, Texas and the Carolinas of a burden measurable in dollars and cents, and to be estimated in many figures.

The study of insect-bearing diseases, as malaria and typhoid, and insect diseases, as filaria, hookworm and the like, already is developing new vistas of possible achievement.

The training of young men studying medicine as a livelihood in the particular fields of hygiene and sanitation makes for the State a future asset in the preservation of human life by the application of the laws which prevent disease.

Medical education is no longer a monopoly in which groups of men teach for a balance in profits from medical education, for, if the Tulane Medical College be taken as an example, for nearly five years the individual student has actually cost the medical college each year nearly twice as much as he has contributed in fees for his education.

Where State-endowed schools teach medicine, this is safe, but where endowment is limited, such public service is rendered without due appreciation on the part of the State.

A medical college is a pronounced asset to the State, and its value may be measured in outlay in service to the student body, to the public and to humanity generally, and after a while the State itself, so far as the Tulane Medical College is concerned, may see its obligation and meet it.

Abstracts, Extracts and Miscellany.

Department of General Surgery.

In Charge of Dr. F. A. Larue, New Orleans.

Experiences in Spinal Surgery: (Charles A. Elsberg, *Surgery, Gynecology & Obstetrics,* February, 1913, Vol. XVI., page 117). The author bases his observations on 60 laminectomies for spinal disease. There were 60 primary laminectomies and 10 secondary operations. Laminectomy was performed 22 times for tumor, 9 times for section of the posterior roots for pain or spasticity, 4 times for inflammatory bone disease, 5 times for old fracture of the spine, twice for syringo- and hydro-myelia, once for intramedullary cyst, once for an arteriovenous aneurysm of the posterior spinal vessels, and three times for a peculiar disease of the roots of the cauda equina. In 13 patients not enough was found to explain the symptoms. *Features of technic:* He advised against the osteoplastic flap methods as being more time-consuming, bloodier, and giving less access to the parts. Hemilaminectomy is only rarely necessary. Free exposure necessary, for proper exploration and in order to avoid handling the cord to too great an extent. Every time the cord is touched the operator is doing harm. Com-

pared with cranial surgery, that of the spine is far less serious. At least two or three spines must be removed for ordinary purposes, and often as many as five to seven must be removed for proper exposure. The support of the spine depends mainly upon the vertebral bodies, and the functions of the spine are well preserved even after the removal of seven processes and laminæ.

The dura should be tightly closed (except in some special cases) and accurate hemostasis and tissue apposition must be made. The wound should never be drained. After cervical laminectomy it is advisable to immobilize the cervical and upper dorsal spine, but in the dorsal and lumbar regions immobilization is not necessary.

The Significance of Positive Wassermann Reaction in Patients with Symptoms of Spinal Tumor: The author states that it is almost as great an error to allow a patient with a suspected spinal tumor, even if a gumma, to become totally paraplegic while antisyphilitic remedies are being given as to allow a patient with a suspected syphilitic brain tumor to become blind while internal remedies are being applied. A patient with a positive Wassermann in the blood and spinal fluid both, may at the same time have a tumor which is non-syphilitic. He quotes Horsley, in that a gumma that is of sufficient size to cause marked symptoms should be operated on without waiting for the results of specific treatment, and agrees with this, with the proviso that at least one intravenous administration of salvarsan be given without marked result.

The Supposed Danger from the Sudden Escape of Cerebrospinal Fluid When the Dura Is Opened: Contrary to what has been the usually accepted opinion regarding danger associated with or following upon this escape, Elsberg is inclined to consider it of small moment. He states that in over 70 spinal operations he has never seen symptoms which could be fairly ascribed to this; and is inclined to find the cause for such symptoms when they do occur as lying in the prolonged manipulations which had gone before, and to the handling of the cord itself.

Bladder disturbances and abdominal distention may occur after laminectomy. Usually there is retention of urine for a few days, persisting rarely for several weeks. When the operation has been done in the lumbosacral region there is lack of perception of bladder distention; following that upon the dorsal or cervical region the discomfort is recognizable to the patient. Incontinence rarely occurs after operation, unless it existed before, and if such

incontinence does occur it usually means that some injury to the cord has taken place during the operation or that there has been considerable bleeding which has remained uncontrolled, within the sac of the pia-arachnoid. If to the latter, it will disappear within a few days or weeks; due to the former it may persist for months; and if due to a more or less complete transverse lesion it may become permanent.

Abdominal distention occurs very frequently after operation in the lower dorsal region. The patients are unable to pass any gas, enormous distention takes place, and the condition is frequently very distressing. The patient may even present the clinical picture of obstruction. The condition tends to subside early, and the best treatment, in addition to enemata, seems to be small doses of morphin and atropin, frequently repeated.

After laminectomy the appearance of the spine from an esthetic standpoint, leaves nothing to be desired. Apart from the scar there is nothing noticeable. The scar tissue that is formed is usually hard and dense, and there is sometimes formed a complete new arch. Free mobility is usually completely recovered. For a few months there is usually stiffness and rigidity, especially when the patient attempts to bend forward or backward. The rigidity is more apt to be prolonged after operation on the lower dorsal and lumbar segments.

The Surgical Features of Old Fracture of the Spine: The most interesting features in this are in those cases in which symptoms do not develop until some length of time following an injury, and are caused by bony overgrowth at the seat of fracture with subsequent pressure upon the cord. Operation on recent fracture is not advisable and is usually followed by poor results.

The surgical aspects of spinal decompression for new growths are very much the same as those of cranial decompression. The removal of an extramedullary tumor of the spinal cord is one of the most satisfactory of all operations. If the tumor has been properly localized and the proper spines and laminae have been removed the operation can be made very short in time and the dangers very small. The operation can usually be done in one stage except when the tumor is in the upper or middle cervical region. In these cases it is often preferable to stop as soon as the tumor has been exposed so as to allow a readjustment of pressure conditions on account of the proximity of the medulla. Intramedullary

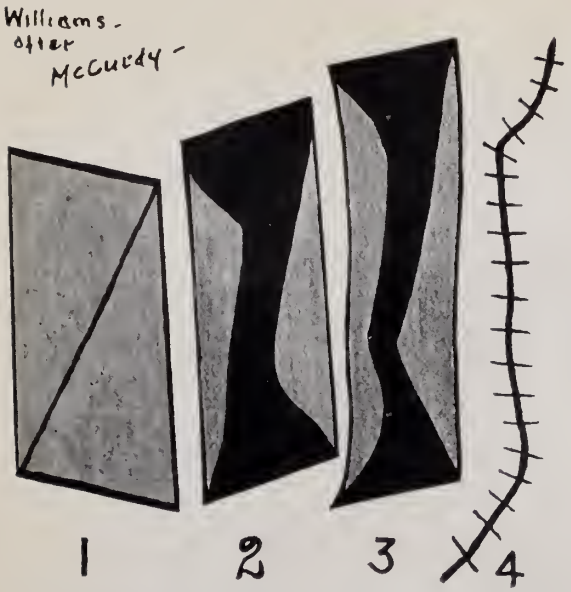
tumors must always be removed in two stages, by the method of extrusion. The surgeon must leave to nature the actual extrusion of the growth; by the free removal of spinous processes and laminae and by a properly placed incision in the cord substance, he must make conditions as favorable for the extrusion of the tumor as possible. Finally, when extrusion has been accomplished, he must remove it without injury, to the surrounding delicate structures. It is not advisable to make a careful examination of the cord after extraction of the tumor, because these cords are very soft and easily injured. The dura must always be opened, even if an extradural growth has been found; for there is sometimes an intradural growth as well. Palpation through the dura is an uncertain procedure and a small intradural growth on the anterior or antero-lateral aspace of the cord might easily be overlooked.

Z-Plastic Surgery: (S. L. McCurdy, *Surgery, Gynecology & Obstetrics,* February, 1913), describes a method of procedure in the management of old cicatrices, across joints, about the neck, or between the fingers, to liberate the deformed members and control the tissues so as to guard against a return of the same deformity after complete repair has occurred. Deformities of this sort, we know, to our discomfort, are amongst the most difficult to relieve, and experience has taught us not to be too sanguine as to the outlook; many failures resulting after the most carefully mapped out work and skill of technic have procured what at the time would appear to be an almost perfect result. The illustrations presented here, copied after those of the author, will serve to point out his method. Williams.

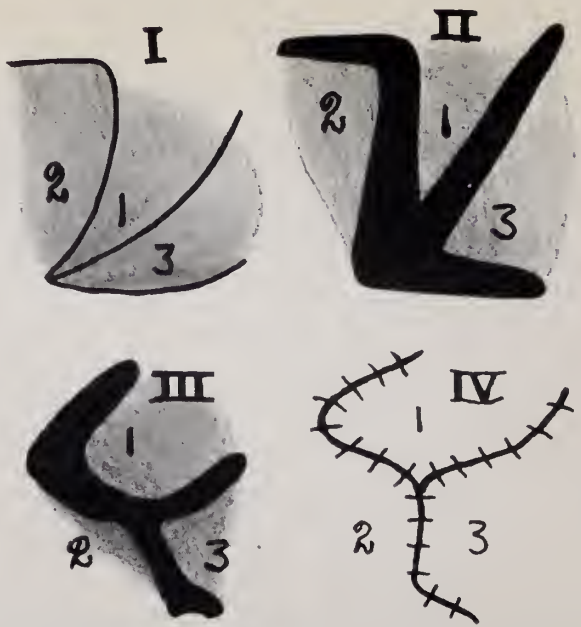
Department of Obstetrics and Gynecology.

In Charge of Dr. P. Michinard and Dr. C. J. Miller, New Orleans.

Abderhalden's Biologic Test for Pregnancy.—This test (which this Journal has discussed editorially more than once) is based on the assumption that a protein that is foreign to the blood will cause the development of the body fluids of an enzyme capable of splitting such foreign proteins. The use of Abderhalden's test for pregnancy, employing the dialysis method and the ninhydrin color reaction, gave the authors positive results with each of twenty-



1—Line of incision and shaded area showing where skin should be dissected from other structures.
2—Partial extension of contracted tissues.
3—Further extension.
4—Complete extension and adjustment of flaps with sutures. Central part of wound is covered with skin.



I—Modified Z incision.
II and III—Intermediate position of flaps as they were shifted from their original to their new position.
IV—Complete suture.

Department of Surgery.

eight serums from pregnant women and eight from women in the postpartum period, including one after abortion. The test has never been negative in a known pregnancy. On the other hand, the serum of pregnancy reacts on tissues (kidney, heart, uterus) other than placenta, and indeed with other than human tissues (e. g., dog's kidney). Also serums of two cases of nephritis, one of tabes and one of infection (carbuncle), and occasionally of some individuals apparently in perfect health, have given the reaction with placenta and other tissues.

The ninhydrin reaction seems far superior to the biuret reaction. It is also important that Schleicher and Schull's smaller dialysis sacks should be used rather than the fish-skin membranes originally recommended. Results as satisfactory as those by dialysis are obtained by mixing tissue and serum in tubes and, after incubating for twenty-four hours, testing the filtrate obtained on coagulation by heat and acetic acid with ninhydrin. Inactivation of the serum causes a great diminution in the degree of reaction, but does not cause it to disappear entirely. At zero temperature no reaction occurs. The power of a serum to cause a reaction persists, when the serum is kept under proper conditions of temperature for at least seven days.

As a result of their studies, the authors feel that this test cannot be accepted as an accurate clinical method until it has been more thoroughly investigated and the possible sources of error corrected. This conclusion, however, applies only to Abderhalden's dialysis method, and not to his optical method, with which they have had no experience.—*Surgery, Gyne. and Obst.* (April, 1913).

MILLER.

POSTOPERATIVE RESULTS OF AMPUTATION OF CERVIX.—An analysis of 128 cases reported by Leonard shows that hemorrhage after amputation of the cervix is not uncommon (5 per cent), and may occur weeks after operation. Cases of late postoperative hemorrhage are due to infection rather than faulty suture of the cervix. After amputation of a diseased cervix, 90 per cent of the patients show noticeable improvement in general health. Persistent leucorrhea of cervical origin is cured in 60 per cent of cases and improved in 30 per cent. About half the patients experience less menstrual pain after the operation. Four-fifths of the women remain sterile after operation; yet in certain selected cases of per-

sistent sterility amputation of the cervix seems to be the only practicable procedure. This postoperative sterility is probably mechanical in origin, and may be due either to a narrowing of the external os through encroachment by the edges of the vaginal mucosa or to a stenosis of the cervical canal. Consequently, on the iris-like contraction of the cicatrix which invariably follows the operation. A pregnancy following amputation of the cervix has not more than an even chance of progressing to full term, in which event serious dystocia due to cicatricial rigidity, follows. It is the operation of choice in elderly women, but this procedure should be applied to those in the child-bearing period, only when more conservative methods of treatment, such as Hunner's linear cauterization or thorough curetage of the cervix have failed.—*Ibid.*—MILLER.

THE OUT-DOOR TREATMENT OF PUERPERAL INFECTION.—(The *Boston Med. and Surg. Jour.*, Vol. GCXVI, No. 11, page 405). In discussing this subject, Drs. Ernest Boyden Young and John M. Williams express the opinion that the advantages of this therapeutic method have not to this day been brought out sufficiently. The authors attribute the great fall in the mortality of puerperal infection to 24 per cent in the 133 cases which they observed in the Boston City Hospital to this method, when previously the mortality was 44.6 per cent. The authors divided the cases which they treated under two cases: those in which there was found no inflammatory process outside of the uterus, and those where the reaction had reached the adnexa, the pelvic sinuses or the peritoneum. This division has permitted them to present a comparative estimate of results obtained in the indoor and the outdoor treatment.

Further data give the results, obtained by two treatments in connection with bacteriological examination of the uterus in 110 cases and in connection with blood cultures when these were made.

In reference to local treatment, Young and Williams still advocate intra-uterine injection only as long as the infection has not spread beyond the uterus. Results obtained by the use of anti-streptococcic serum were not very encouraging, perhaps because the cases were too far advanced when they reached the hospital. The authors used vaccins in nine cases, seven of which were strepto-

coccus, one pneumoccoccus and the other staphylococcus aureus. They used autogenous vaccins in these cases, but without appreciable results in the majority of cases because the temperature had fallen before the vaccins had been prepared.

The action of fresh air and sunlight in the treatment of puerperal infection seems to be to increase the resisting powers of the patient, by increasing the hemoglobin and diminishing the hemolytic processes. Schottmuller has in fact demonstrated the hemolytic power of virulent streptococcus and the anemia which rapidly overtakes infected ones is a fact of current observation.

The treatment is given in the following manner: The patient is put on a movable bed, which permits her to be taken in if necessary, and is exposed to the sun. Unless the temperature is too high, under these conditions pallor disappears, the appetite increases and the patient's strength returns.

The best results were obtained in prolonged pyrexia or after several weeks of high temperature, the general condition being upheld in a marvelous way.

Iron and arsenic are the logical adjuvants of this treatment. In so far as reconstructing the hemoglobin, alcohol and strychnin are equally used. The urinary secretion is also increased by giving large amounts of water to drink and by saline enemas.

According to the authors, the best actual results are obtained by the outdoor treatment of puerperal infection—results which can no doubt be improved upon in the future by new methods.

MILLER.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

GRANULOMATOSIS OF STOMACH.—The authors conclude that linitis plastica is not a new kind of morbid process, but is the effect of some chronic infective agent whose nature has not yet been determined. The process at work is often akin to the granulomatous process which occurs in mediastinal tissues and elsewhere; it is akin to the changes which occur in the course of some forms of tuberculosis and of diffuse sclerotic types of tertiary syphilis, and

it is occasionally followed by the development of an epithelial growth, just as is sometimes noticed as a sequel to tuberculosis and syphilitic lesions. The disease known as linitis plastica, or cirrhosis of the stomach, only demands a separate name because it is clinically a simulator of true carcinoma. Its prognosis should be more favorable and its treatment by the surgeon more effective. The small degree of epithelial overgrowth which may be regarded by some observers as carcinomatous, is not really any greater in extent than are the atypical proliferations of epithelium which are known to result from the subcutaneous introduction of certain irritant lipoid soluble bodies. The suggestion is that the abnormal cells in this granulomatous tissue are pouring out substances which may excite the overgrowth of the grandular epithelial cells in the same way that many bodies (dimethylamidoazobenzol, amidoazotuluol, a-naphthylamine, methylimidazol, indol and skatol, etc.) were found to excite epithelial overgrowth by Wacker and Smincke, in 1911. This renders the development of carcinoma as a secondary process on a pre-existing (often long persistent) submucosal disease quite intelligible, and emphasizes the view which the authors would point out that the maligant change in this, as in "Hodgkin's disease," and in many lymphosarcomas (also in Paget's disease of bones), is not an inevitable sequence, but is superimposed by the succumbing of certain other tissues to the continued noxious action of abnormal cell-products.—*Amer. Journ. of Med. Sciences.* J. A. S.

Iron in Muscle.—Ishida's material was that of sixty-one autopsies in addition to animal experimentation. In the cases where there was muscular atrophy, he was able to demonstrate microchemically the presence of iron in the striated muscle fibers. This iron did not come from blood pigment but from the muscle itself, probably from the so-called muscle hemoglobin. In animals the same condition could be produced artificially by nerve section. The iron was more abundant in guinea pigs than in mice. The practical value of this discovery is that we can no longer say that an iron-containing pigment is necessarily derived from the blood.—*Virchow's Archiv.* (Berlin). J. A. S.

Pepsin in the Urine.—Tachau reports research which shows that the digestive ferments in the urine cannot be relied on as an index of stomach disease.—*Zeitschrift für Klinische Medizin,* (Berlin). J. A. S.

Dietetic Treatment of Polyuria.—Strauss has long been calling attention to a special feature of diabetes insipidus, namely, the inability of the kidneys to produce urine of a concentration corresponding to the intake of solids. The kidney is able to eliminate the solid elements only by washing them out in an excessively large output of urine. In doing this the tissues get dried out. This explains the benefits of a salt-poor diet in diabetes insipidus in some cases. When restriction in the amount of salt in the food fails to influence the polyuria, then the amount of fluid taken should be restricted at the same time. Restriction of both salt and fluid is not necessary unless the salt-poor diet alone fails to have the desired effect. He comments on the excessive drinking of fluid in many cases of diabetes insipidus as a bad habit; restriction of the intake of fluid has a good educational influence. The thirst can be relieved sometimes with fruits or rinsing the mouth with cold water or by sipping a little lemonade or carbonated water. The absence of phenomena on the part of the heart and the comparatively normal blood-pressure shows, he says, that diabetes insipidus is not so very serious. The injury of the cardiovascular system from tranporting such large amounts of fluids is not so severe as some believe. The intake of fluid in the evening should be reduced to avoid the interference with sleep. He thinks that the protein intake can be reduced to 60 or 70 gm. daily. When a functional neurosis or arteriosclerosis is involved, meat had better be avoided. —*Deutsche Medizinische Wochenschrift* (Berlin). J. A. S.

Autogenic Vaccin in Furunculosis in Infants.—Harriehausen reports seven cases which illustrate the peculiar advantages of autovaccin therapy in rebellious cases of furunculosis in infants. He declares that the technic is extremely simple and takes very little time, while the method is absolutely free from danger and there are no contra-indications. The charts of his cases show that no new furuncles developed after the second or third injection, while the pre-existing furuncles all retrogressed simultaneously. The larger the single dose, the longer the interval should be; the first dose for adults should be about fifty million and for children about twenty million, and for infants ten million at five-day intervals, the dosage guided by the temperature, pulse, weight, appetite, general complaints and focal reactions. There are two contra-indications for adults, the menstrual period and severe diabetes. In the cases reported the infants were all much debilitated and the fur-

unculosis had long resisted all other measures. The dosage and intervals and the underlying disease differed in the various cases, but the excellent ultimate outcome was alike in all.—*Therapeutische Monatshefte* (Berlin). J. A. S.

Treatment of Congenital Syphilis with Salvarsan and Neosalvarsan.—Dunzelmann treated forty children with congenital syphilis, at the Leipsic Children's Hospital, for periods varying from 10 days to 16 months. The results obtained from salvarsan and neosalvarsan intravenously were about the same. He thinks it a valuable treatment, but further investigation is necessary in regard to dosage and methods of giving. A mixed salvarsan and mercury treatment is probably best. In poorly nourished children mercury should be given first, followed by salvarsan. Two pregnant mothers were treated with salvarsan and the infants showed negative Wassermann reaction, but had some signs of latent syphilis.—*Zeitschrift für Kinderheilkunde* (Berlin). J. A. S.

Department of Nervous and Mental Diseases.

In Charge of Dr. R. M. Van Wart, New Orleans.

Menstrual Psychoses.—H. Konig states that it has been recognized for ages that a large number of women present psychic anomalies during the menstrual period which pass off when the period ends and leave the woman quite sound. An analysis of these records reveals the inclusion of a number of distinct conditions, but although many of the supposed anomalies of menstruation can be classified under recognized mental disturbances, a number remain which correspond to what Krafft-Ebing called "psychosis menstrualis" *(Berl. klin. Woch.,* August 26, 1912). The author first discusses the distinction between hysterical mental disturbances appearing during the menstruation. Given a marked case, in which hysterical signs and a hysterical habit are discernable, it is reasonable to suppose that the psychosis is in part, at all events, dependent on the hysteria, and therefore the prognosis will be less favorable than when it is not so influenced. The same may be said in regard to epilepsy. He objects to the view that every case of menstrual psychosis need have an ascertainable basis.

Of course this condition will only be found in a person who possesses a certain degree of psycho-physical degeneracy, but it is unreasonable to require a more definite basis for changes in a predisposed individual during a time when the normal individual undergoes an alteration in bodily habit in mood and in capability for work. The author divides the cases into (1) those psychoses which occur periodically with regular intervals before the first menstruation and which do not recur after the first period; (2) ovulation psychoses, occurring either once, or several times, or at each period; and (3) the so-called epochal menstrual psychosis. Instances of the first and third groups are rare, the author having only come across one of each, but those of the second group are very common. They include the hysterical, epileptic, and the non-classified cases. The disturbances may be pre- or post-menstrual or may occur during the period. The more common forms are the maniacal, the melancholic, and the hallucinatory, the latter resembling a condition of amentia very closely. A number of these cases loose their initial characters and pass over into chronic psychoses, either of the catatonic or of the maniacal-depressive type. After discussing the justification of associating these forms of psychosis with menstruation, which has been questioned by some psychologists, he turns with caution to the prognosis. In general terms he states that the earlier the condition sets in the worse is the prognosis. This, of course, does not apply to those cases included in the first group of the classification. An exception is found in the so-called pseudo-menstrual climacteric insanity. In such cases, although the onset takes place in advancing years, the prognosis is bad. He cites some cases as illustration for the prognosis. The author further adds a few words on the etiology of these conditions, about which he admits very little is known.

VAN WART.

TUMOR OF THE HYPOPHYSIS.—Rozabel (*Revista de Med. y Cir. Pract.*, September 14, 1912), at the May session of the Academia Medico-Quirurgica Espanola, showed two brothers with all the symptoms regarded as characteristic of tumor of the pharyngeal portion of the pituitary body, and consequent deficient action of that part of the organ. In the family history there was nothing of interest beyond the facts that both parents were of short stature and that the mother had experienced repeated abortions. This lat-

ter fact, notwithstanding, the Wassermann reaction was negative in both parents and children. The elder boy, 14 years of age, commenced to suffer from dimness of vision at about 3 years of age. This gradually increased until he was able to distinguish objects only in limited portions of the field of vision. Soon it was noted that he was growing bulky, especially about the belly and thighs. At the same time he ceased to grow in height. The external genital organs remained in a rudimentary condition. When first seen by Rozabal his height was 1.17 metre, much adipose tissue everywhere; the thighs and pubis were of the feminine type, the genital organs no more developed than in a boy of 4 years of age. There was double optic atrophy, and he counted fingers with difficulty at a distance of a metre. The arterial tention was 13.0, urine normal, hand extraordinarily small. The appearance and history in the case of his brother, 11 years of age, were similar but somewhat more advanced. There was typical hemianopsia. Both parents had a supernumerary digit on each foot, and the younger in addition a penile hypospadias. A radiograph of the sella turcica showed nothing worthy of mention. The combination of signs—increase of fatty tisue, cessation of growth, atrophy of the genital organs—forms the syndrome of Frölich, and is regarded as a consequence of tumor of the pituitary body with hypofunction of the gland. In some respects it is the reverse of acromegalia, nearly always due to hyperfunction of the gland. The author considers, in view of the usual relative benignity of tumors in these cases and the teratological alterations which were present—supernumary toes, hypospadias—that there was probably in these two cases a cyst formed by an invagination of the ectoderm at the level of the pharyngeal portion of the hypophysis. These are the first cases of the syndrome of Frölich which have been reported from Spain.

VAN WART.

PSEUDO-LUMBAR PUNCTURE IN ENURESIS.—Allasia *(La Pediatria,* October 31, 1912), believing that the success of the lumbar puncture in the treatment of essential enuresis in children is due to the psychical effect rather than to the puncture *per se,* has treated a series of cases by what he calls pseudo-epidural puncture. He carries out all the details of the ordinary lumbar puncture, but instead of injecting the physiological solution into the spinal canal, he merely injects it into the subcutaneous tissue. He says his results were quite as good in this method as in the more severe mode

of treatment. All cases where the enuresis might possibly be due to such causes adenoids, morbid urine, etc., were excluded, and only esential or idiopathic cases taken. Brief details of 23 cases are given, and these had 35 pseudo-lumbar punctures. In 16 no result was observed, in 2 the enuresis ceased for one night, in 8 for a few days, in 3 for some weeks, and in 3 for some months. Looked at in another way, 12 of the 23 cases got no benefit, 6 had slight and transitory relief, 5 were relieved for long periods. These cases, compared with another series of true lumbar puncture, led the author to believe that the main factor when relief follows is one of mental suggestion, and the contrary is that esential enuresis is a neurosis. VAN WART.

A STUDY OF THE RESPIRATION AND CIRCULATION IN EPILEPSY. —Pollock and Treadway (*Archives of Internal Medicine,* Vol. II, No. 4), conclude as a result of the study of forty-four cases by graphic methods that in these cases:

1. There are present in many cases of epilepsy rythmical variations of blood-pressure other than those due to respiratory movements.

2. The sequence of events relative to a convulsion is as follows: A preliminary rise in blood-pressure followed in series by a sudden drop of blood-pressure, a period of apnea, and then the convulsion.

3. The blood-pressure was relatively low during convulsions of petit mal type and during some of the corresponding period of the fits of the grand mal type.

4. The pulse was rapid during the convulsion.

5. A study of the changes in the respiratory and circulatory systems in some of the cases of epilepsy suggests that the site of discharge is in the medulla and pons (the "lowest level of fits" of Hughlings Jackson). Likewise it points to the medulla as participating in the discharge in all cases of epilepsy whether this discharge originates there or not. VAN WART.

Louisiana State Medical Society Notes.

In Charge of Dr. L. R. DeBuys, Secretary, New Orleans.

Minutes of the House of Delegates.

Synopsis of Minutes of the Thirty-fourth Annual Meeting of the Society, Held at Baton Rouge, April 22-24, 1913.

The House of Delegates held six sessions, the first on Monday, April 21, at 4 p. m., and subsequent ones on Tuesday ,April 22 at 8 a. m., Tuesday, April 22 at 7:30 p. m.; Wednesday, April 23 at 9:30 p. m.; Thursday, April 24 at 9:30 a. m., and Thursday, April 24 at 1:30 p. m.

The reports of the officers, Councillors and standing committees, which were read, were approved, with the exception of the report of the chairman of the council.

An amendment to Section 12 of Chapter 12 of the By-Laws relative to the sending to the Secretary of the Louisiana State Medical Society by the secretaries of the component societies the names of delegates and members before the first day of January instead of ten days before the annual meeting as is now provided. Adopted.

The following Parish Societies, having complied with the requirements of the By-Laws in the premises, were granted charters:

Beauregard Parish Medical Society.
East Feliciana Parish Medical Society.
La Salle Parish Medical Society.
Livingston Parish Medical Society.
Richland Parish Medical Society.
St. James Parish Medical Society.
St. Tammany Parish Medical Society.

Recommendations:

That the Councillors should report the deaths occurring within their districts to the secretary.

That the president appoint fraternal delegates to State Societies.

That the president be instructed to appoint a committee to study the subject of Medical Defense and to report back to the House of Delegates at the next annual meeting.

That a committee be appointed by the chairman of the House of Delegates to report upon any changes which may be needed and contemplated, and to report at our next annual meeting.

Resolutions adopted:

That Dr. T. B. Futcher of Baltimore be thanked for his interest in the Louisiana State Medical Society, and that he be thanked for his instructive address.

That the Louisiana State Medical Society recognize with approval the sanitary work of the Louisiana State Board of Health done the past year.

Recognizing the great research work of Dr. C. C. Bass, of New Orleans, and wishing him even greater success in the future.

Tendering votes of thanks to the citizens of Baton Rouge, especially to the ladies who assisted in entertaining the members of the society; to Dr. and Mrs. Chas. McVea; to the East Baton Rouge Medical Society; the various institutions; readers of papers; the press and all others contributing to the entertainment of our society.

Tendering a vote of thanks to Dr. J. A. Caruthers, in a special manner, as chairman of the committee on arrangements.

New business:

The council was increased to eight members, so that the eight congressional districts should be represented.

The following officers were elected:

President: Dr. Fred J. Mayer, Opelousas.

First Vice-President: Dr. A. J. Perkins, Lake Charles.

Second Vice-President: Dr. A. H. Gladden, Monroe.

Third Vice-President: Dr. W. S. Rutledge, Ruston.

Secretary: Dr. L. R. DeBuys, New Orleans.

Assistant Secretary: Mr. Geo. Augustin, New Orleans.

Councillors:

First Congressional District: Dr. W. H. Seemann, New Orleans.

Second Congressional District: Dr. H. B. Gessner, New Orleans.

Third Congressional District: Dr. Leon J. Menville, Houma.

Fourth Congressional District: Dr. D. J. McAnn, Atkins.

Fifth Congressional District: Dr. R. W. Faulk, Monroe.

Sixth Congressional District: Dr. J. W. Lea, Jackson.

Seventh Congressional District: Dr. I. N. Adams, Eunice.

Eighth Congressional District: Dr. E. Lee Henry, Lecompte.

Delegate to the American Medical Association, Dr. Oscar Dowling, Shreveport; alternate, Dr. Geo. S. Bel, New Orleans.

Chairman of the House of Delegates: Dr. W. H. Seemann (1914 meeting).

Names recommended to the Governor for vacancy on the Board of Medical Examiners: Dr. J. G. Martin, Lake Charles, and Dr. W. G. Owen, White Castle.

Next place of meeting: New Orleans, the time to be decided upon by the President and Council.

MINUTES OF THE GENERAL SESSION.

First Day, April 22, 1913. Morning Session.

The society met in the House of Representatives and was called to order at 9 a. m., by the president, Dr. B. A. Ledbetter, of New Orleans.

REV. J. GILMER BUSKIE, of Baton Rouge, delivered the invocation.

MR. T. SAMBOLA JONES, representing the Mayor of Baton Rouge, delivered the address of welcome.

DR. ROBERT C. KEMP, president of the East Baton Rouge Parish Medical Society, delivered the following address:

Mr. President and Members of the Louisiana State Medical Society: To-day marks a new epoch in the history of Baton Rouge, for never before has it been so proud as to-day in having within its confines this great scientific body of men. The pleasant duty has been assigned to me of extending to you a welcome on behalf of the East Baton Rouge Parish Medical Society. We hope your stay among us will be both pleasant and profitable, and that when you have concluded your deliberations and have taken your departure you will not require any undue amount of persuasion to meet with us in the future. We hope to have a record-breaking attendance at this meeting; but in the event some of the members are prevented from coming here, we hope the success of this meeting will be an inducement for a fuller attendance next time. Again, on behalf of the East Baton Rouge Parish Medical Society, I extend to you a thrice welcome.

DR. J. A. CARUTHERS, of Baton Rouge, chairman of the committee on arrangements, made a report of the work of his committee and of the entertainments planned for the benefit of the visiting members.

Dr. R. F. Harrell, of Alexandria, read a paper entitled *"What the General Practitioner Should Know About Gonorrheal Iritis."*

The paper discussed by Dr. Bel.

Dr. Homer Dupuy, of New Orleans, read a paper entitled, *"Acute and Subacute Pharyngeal Tonsilitis (Adenoiditis)."*

Discussed by Drs. Menville, Caruthers, Genella, Lynch, Chandler, and in closing by the author of the paper.

Dr. R. C. Lynch, of New Orleans, read a paper on *"Some Remote Manifestations of Chronic Sinus Suppuration."*

Discussed by Drs. Hatch, Martin, Scale, and in closing by the essayist.

On motion, the society adjourned until 2 p. m.

First Day—Afternoon Session.

The society reassembled at 2 p. m., and was called to order by President Ledbetter.

Section on Practice of Medicine and Therapeutics. Chairman, Dr. Leon J. Menville, Houma.

Dr. T. B. Futcher of Baltimore, read a paper (by invitation) entitled, *"Eugenics in Its Relationship to the Welfare of the Public."*

Discussed by Drs. Wellman, Genella, and, in closing, by the essayist.

The president extended a vote of thanks from the society to Dr. Futcher for appearing before the society and reading so interesting a paper.

Symposium on Diphtheria.

Dr. C. W. Duval, of New Orleans, read a paper on *"The Bacteriology and Control of Diphtheria."*

Dr. Leon J. Menville, of Houma, read a paper entitled, *"Symptoms and Diagnosis of Diphtheria."*

Dr. George S. Bel, of New Orleans, followed with a paper entitled, *"The Treatment of Diphtheria."*

The symposium was discussed by Drs. Dupuy, Genella, Tetreau, Chandler, Herold, Futcher, Seemann, McVea, Sanderson, Henry, Edwards, and discussion closed by Drs. Duval, Menville and Bel.

Dr. Isaac I. Lemann, of New Orleans, read a paper entitled, *"Modern Conception of Diabetes."*

Discussed by Drs. Eustis, Storck and Genella.

Dr. G. C. Chandler, of Shreveport, read a paper entitled, *"The Fly and Its Extermination.*

Discussed by Drs. Menville, Dowling, Perkins, and, in closing, by the essayist.

Dr. D. W. Kelly, of Winnfield, read a paper entitled, *"A Case of Pellagra Treated with Salvarsan."*

Discussed by Drs. Knighton, Pierson, Willis, Lyons, Bass, and, in closing, by the essayist.

On motion, the society adjourned until 8 p. m.

First Day—Evening Session.

The society reassembled at 8 p. m., and was called to order by the president.

Section on Tropical Medicine and Hygiene. Chairman, Dr. Creighton Wellman, of New Orleans.

Dr. Wellman read a paper on *"Recent Advances in Tropical Medicine of Practical Interest to the General Practitioner in the South."*

Discussed by Dr. Bass.

Dr. Foster M. Johns, of New Orleans, gave a stereopticon demonstration of *"Cultures of the Malarial Parasites."*

Dr. C. C. Bass, of New Orleans, followed with remarks, which were illustrated by stereopticon slides, on *"Influnces Affecting the Reproduction of the Malarial Plasmodium in Man."*

At the conclusion of Dr. Bass' remarks, Dr. Isadore Dyer, of New Orleans, as trustee, representing the Southern Medical Association, presented Dr. Bass with a gold medal in recognition of his achievements in medical research.

Dr. Bass thanked the Southern Medical Association through Dr. Dyer for the appreciation of what he had done in medical research.

The remarks of Drs. Johns and Bass were then discussed by Drs. Wellman and Simon.

Section on Hygiene and Sanitary Science. Chairman, Dr. Oscar Dowling, Shreveport.

Dr. Dowling read a paper on *"The New Health Commandant."*

Dr. William H. Seemann, of New Orleans, followed with a paper on *"The Necessity of Microscopic Examination in the Prevention of Disease."*

Discussed by Dr. Dowling, and, in closing, by the essayist.

Dr. S. D. Porter, of Baton Rouge, read a paper on *"Legisla-*

tion, State and Local, and What May Be Assomplished for Sanitation."

Discussed by Drs. Dowling and Genella.

Dr. J. H. White, of New Orleans, contributed a paper on *"Malaria in Louisiana,"* which, by direction, was read by Dr. W. M. Perkins.

Discussed by Dr. Dowling.

Dr. E. S. Hatch, of New Orleans, read a paper on *"Anomalies of the Sacro-Lumbar Articulation."*

(On motion of Dr. Hatch, a vote of thanks was extended to the Standard Oil Company for their courtesy and entertainment.)

Dr. Wallace J. Durel, of New Orleans, read a paper entitled, *"Further Observations on the Neutrophile Leucocytic Count As a Guide for the Administration of the Tuberculins."*

Discussed by Dr. Simon.

Dr. J. A. Storck, of New Orleans, read a paper on *"Ehrmann's Palmin Test for the Function of the Pancreas."*

Discussed by Drs. Simon and Knighton.

On motion, the society adjourned until 8 a. m.

April 23—Second Day—Morning Session.

The society met at 9 a. m., and was called to order by the president.

Section on Diseases of Children. Chairman, Dr. Solon G. Wilson.

Symposium on Cerebro-Spinal Meningitis.

Dr. C. W. Duval, of New Orleans, read a paper entitled, *"Cerebro-spinal Meningitis from a Pathological and Bacteriological Standpoint."*

Discussed by Drs. Simon, Genella, Herold, and, in closing, by the author of the paper.

Dr. Solon G. Wilson, of New Orleans, read a paper on *"Treatment of Diphtheria and Diphtheria Carriers."*

Discussed by Drs. Bel, Genella, McCann, Eustis, Duval, Lyons, O'Donnell. Discussion closed by Dr. Wilson.

Dr. Allan Eustis, of New Orleans, read a paper entitled, *"Acidosis."*

Dr. L. R. De Buys, of New Orleans, read a paper on *"Acid Intoxication in Children."*

These two papers were discussed together by Drs. Simon, Wellman, Harris, Wilson, and, in closing, by the essayists.

SECTION ON PHYSIOLOGY, PATHOLOGY AND BACTERIOLOGY.

Chairman, Dr. A. A. Herold, Shreveport.

DR. HEROLD read a paper entitled *"Pathology, the Basis of Scientific Medicine."*

Discussed by Drs. Bel, McGehee and Harris.

DR. WILLIAM H. HARRIS, of New Orleans, read a paper entitled, *"Notes on Recent Interesting Work Seen in the Laboratories Here and Abroad."*

DR. F. G. ELLIS and DR. W. P. BUTLER, of Shreveport, contributed a joint paper on *"Hydrophobia and the Pasteur Treatment,"* which, in the absence of the authors, was read by title.

DR. CHAILLÉ JAMISON, of New Orleans, read a paper on *"Diagnosis of Essential Anemias,"* which was discussed by Drs. Herold, Genella, Eustis, Knighton and Simon.

DR. J. A. LANFORD, of New Orleans, read a paper on *"Complement Deviation Test for Diagnosis of Gonorrhea."*

Discussed by Dr. Harris, and, in closing, by the essayist.

DR. RANDOLPH LYONS, of New Orleans, read a paper on *"Emetin Hydrochloride in the Treatment of Amebic Dysentery.*

Discussed by Drs. Bel, Simon, Genella, Perkins and Duval.

On motion, the society adjourned until 2 p. m.

Second Day—Afternoon Session.

The society reassembled at 2 p. m., and was called to order by the president.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Chairman, Dr. Thomas Ragan, Shreveport.

DR. S. M. D. CLARK, of New Orleans, read a paper entitled, *"A Discussion of Pelvic Infection, with Special Reference to the Needs of the General Practitioner."*

DR. F. W. PARHAM, of New Orleans, read a paper on *"The Operative Treatment of Inaccessible Vesico-vaginal Fistula."*

Discussed by Dr. Clark, and, in closing, by the essayist.

DRS. W. D. PHILLIPS and M. THOMAS LANAUX, of New Orleans, contributed a joint paper on *"The Frequency and Causes of Still-Birth."*

DR. CHARLES MCVEA, of Baton Rouge, followed with a paper entitled, *"The Cases of Puerperal Eclampsia That I Have Seen."*

This paper was discussed by Drs. Genella, Ellis, Willis, Edwards, Jones, Kemp, Hawkins, Fox, Sanderson, McGehee, and the discussion closed by the essayist.

Dr. E. L. McGhee, of Hammond, read a short paper on *"The Tuberculosis Campaign,"* after which the society, on motion, adjourned until 8 p. m.

Second Day—Evening Session.

The society reassembled at 8 p. m., and was called to order by the president.

Dr. G. C. Chandler, of Shreveport, first vice-president, took the chair, and President Ledretter delivered his address.

In the absence of the Governor, Dr. Isadore Dyer, of New Orleans, was called up by the president to address the society on *"Medical Education."* He was followed by Dr. Fred J. Mayer, of Opelousas, who spoke on *"Hygiene and Sanitation in Their Relation to the Public Health."*

On motion, the society adjourned until 9 a. m., Thursday.

April 24—Third Day—Morning Session.

The society met at 9 a. m., and was called to order by the president.

Section on Surgery and Anatomy.

Chairman, Dr. J. M. Batchelor, New Orleans.

Dr. Batchelor read a paper on *"Surgery of Exophthalmic Goitre."*

Dr. Hamilton P. Jones, of New Orleans, read a paper on *"Medical Aspects of Exophthalmic Goitre."*

Dr. William H. Harris, of New Orleans, read a paper on *"Pathology of Exophthalmic Goitre."*

These papers were discussed by Drs. Genella, Kelly, Parham, Martin, Rutledge, Williams, Parham, Danna and discussion closed by Drs. Jones and Harris.

Drs. Rudolph Matas and Hermann B. Gessner, of New Orleans, contributed a joint paper on *"Lymph or Elephantiac Edema, Its Therapeutics, with Special Reference to the Kondolean Operation."*

Discussed by Drs. Parham, Genella, and, in closing, by Dr. Gessner.

Dr. E. Denegre Martin, of New Orleans, read a paper entitled, *"A New Suggestion in the Operative Treatment of Oblique Fractures."*

Discussed by Drs. Parham, Danna, Smyth, Henriques, Kemp and Salatich.

Dr. Robert C. Kemp, of Baton Rouge, read a paper on *"Emergency Surgery, So-called, with Reports of Cases."*

Discussed by Drs. Parham, Ellis, Stirling, Danna, and, in closing, by the essayist.

On motion, the society adjourned until 3 p. m.

Third Day—Afternoon Session.

The society reassembled at 2:30 p. m., and was called to order by the president.

Section on Dermatology.

Chairman, Dr. J. Numa Roussel, of New Orleans, who read a paper on *"Acne, Its Prognosis and Treatment."*

Discussed by Drs. Salatich and Singletary.

Dr. Adolph Henriques, of New Orleans, read a paper on *"The X-ray in the Recognition of Pulmonary Tuberculosis."*

Dr. C. V. Unsworth, of New Orleans, read a paper on *"Mental Diseases; a Neglected Study; the Cost to Society and Individuals."*

Discussed by Dr. Dyer, and, in closing, by the essayist.

Dr. L. J. Genella, of New Orleans, read a paper on *"Pituitrism; Its Surgical Importance and Its Early Recognition by the General Practitioner."*

Dr. P. A. McIlhenny, of New Orleans, read a paper on *"Flat Feet and What They Lead To."*

Dr. S. L. Christian and Dr. E. L. Sanderson, of Shreveport, contributed a joint paper on *"Experimental Work in Vascular Surgery, with Report of a Case."*

Discussed by Drs. Allen, Genella, Danna, and discussion closed by the essayists.

At this juncture the report of the proceedings of the House of Delegates was read to the members, and on motion, the report was accepted as read. (For full report, see minutes of the House of Delegates.)

Dr. John Smyth, of New Orleans, read a paper entitled *"Vicious Circle Following Short No-Loop Operation Relieved by Secondary Jejuno-Jejunostomy."*

Discussed by Drs. Salatich and Henriques.

Dr. Carroll W. Allen, of New Orleans, read a paper entitled, *"Prostatectomy Under Local Anesthesia."*

Discussed by Drs. Sanderson and Ellis, and discussion closed by Dr. Allen.

Dr. P. B. Salatich, of New Orleans, read a paper on *"The Use of Vaseline As a Substitute for Beck's Paste."*

Discussed by Dr. Henriques.

On motion, the society then adjourned to meet in New Orleans in 1914.

(Signed) L. R. De Buys, M. D., Secretary.

Medical News Items.

Congress of American Physicians and Surgeons.—Quite a delegation from New Orleans attended the Congress at Washington, May 6-8, including Drs. Parham, Matas, Wellman, Duval, Durel, Lynch, Miller, Butterworth, De Buys, Bruns, Harris, Wade, Bass, Seeman and Dyer. The general sessions and the different associations were well attended. An unusual number of social functions was provided, among which the President's reception at the New Willard Hotel was especially notable.

To Enlighten Public on Need of School Reform.—Not the least important part of the program of the International Congress on School Hygiene, to be held at Buffalo, August 25-30, will be given over to papers and discussions calling public attention to the urgent need of extending medical inspection throughout the individual communities of the United States. This need of reform, according to educators, is based upon the findings made by recent medical inspection in schools which show:

That of all pupils 26 per cent suffer from eye strain.
That 6 to 12 per cent suffer from enlarged tonsils.
That 12 to 24 per cent suffer from nasal obstruction.
That 2 to 5 per cent suffer from defective hearing.
That 50 to 75 per cent suffer from decayed teeth.
That 10 to 30 per cent suffer from nervous disorders.
That 5 to 20 per cent suffer from some deformity.
That 1 to 15 per cent suffer from skin diseases.
That 1 to 67 per cent suffer from pediculosis of the scalp.

Laws providing for medical inspection are needed, says a report of the Sage Foundation, because experience has demonstrated that efficient medical inspection betters health conditions among school children, safeguards them from disease, and renders them healthier, happier and more vigorous.

"Every such law should make provision for frequent inspections of children by duly qualified school physicians to detect and exclude cases of contagious disease," continues the report. "It should provide for examination of all the children by school doctors, to detect any physical defects which may prevent the children from receiving the full benefit of their school work, or which may require that the work be modified to avoid injury to the child. It should empower school physicians to conduct examinations of teachers and janitors, and make regular inspections of buildings, premises, and drinking water, to insure their sanitary conditions. School nurses should be provided for in each law, because they are the most valuable adjunct of medical inspection, and the most efficient possible link between the schools and the homes."

The American Proctologic Society will hold its fifteenth annual meeting at Minneapolis, Minn., June 16 and 17, 1913. Headquarters and place of meeting, Hotel Radisson. The profession is cordially invited to attend all meetings.

Seventeenth International Congress.—Those desiring to participate in this Congress, which will be held in London from August 6 to 12, 1913, are requested not to delay sending their subscription, $5 addressed to "The Treasurer of the XVII International Congress of Medicine, No. 13 Hinde Street, London, W., England," enclosing their personal card and designating to which section they wish to be allotted. Wives and daughters of congressists are charged half of the above fee. The death of Sir Henry Swanzy has caused a vacancy in the presidency of the section of ophthalmology, which has been filled by the appointment of Sir Anderson Critchett.

The Historical Medical Museum, organized by Mr. Henry S. Wellcome, which is to be opened in London towards the end of June, will include some objects of exceptional historical medical interest. An important exhibit in the science section will be a large collection of the original apparatus used by the famous Galvani in making his first experiments in Galvanism in the eighteenth century. Ancient microscopes and optical instruments gathered from all quarters of Europe will form another important feature, and a selection of surgical instruments used by famous surgeons when operating on historical personages is promised.

A Meeting of the alienists and neurologists of the United States

is to be held in Chicago June 24-27, 1913, the week following the meeting of the American Medical Association at Minneapolis.

The Texas Medical Association held its annual meeting May 6-8 in San Antonio. One of the features of the program was an address by Dr. Fred Mayer, president of the State Medical Society of Louisiana, to the Tulane Alumni, on the subject of reciprocity with Texas, pointing out the anomaly that the president of the Texas Board of Medical Examiners and many of the most eminent medicos in Texas were graduates of Tulane. Dr. Evans, head of the Board of Medical Examiners, and many others gave assurances that they would do all in their power to secure the desired reciprocity, which would enable medical graduates licensed in Louisiana to practice in Texas without being subjected to a new examination.

The Louisiana Pharmaceutical Association held its annual convention in New Orleans on May 13, 14 and 15. There were many interesting papers read and a delightful banquet was enjoyed at the close of the sessions.

The Lafourche Parish Medical Association held its annual meeting and banquet in Thibodaux on April 30, and entertained the dentists as their guests. Those present were: Drs. L. E. Meyer, Albert J. Meyer, H. S. Smith, C. J. Barker, P. J. Dansereau, Thomas Stark, E. A. Kleinpeter, F. T. Gouaux and J. J. Ayo; dental surgeons, Drs. J. J. Daigre, O. L. Braud, J. L. Ragan and J. P. Fortier.

Hospital Interns Graduate.—On May 1 the senior intern class at the Charity Hospital received their hospital diplomas, and a banquet in their honor was held in the evening. The graduates are: Drs. R. C. Webb, T. H. Patton, D. H. Sparks, C. J. Bordenave, A. M. Kahn, G. J. Hauer, J. G. Hirsch, J. C. Roberts, D. F. Gray and J. D. Garrett.

Sociological Congress Meets.—On April 26, with more than a thousand delegates present, including leading sociological specialists from all parts of the United States, the Southern Sociological Congress was formally opened at Nashville, Tennessee. Dr. J. H. Dillard, of New Orleans, presided over the race-problem conferences.

Annual Meeting American Medical Editors' Association. —The annual meeting of this society will be held June 16 at the

Hotel Radisson, Minneapolis, Minn. An interesting program has been prepared covering ideas of journalistic as well as general information. The annual banquet will be held on the evening of the 16th, at the Radisson Hotel.

Examination of Candidates for Assistant Surgeon.—Boards of commissioned medical officers will be convened to meet at the Bureau of Public Health Service, 3 B Street, S. E., Washington, D. C., and at the Marine Hospitals at Boston, Mass.; Chicago, Ill.; New Orleans, La., and San Francisco, Cal., on Monday, June 9, 1913, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service. Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to their professional and moral character. Service as internes in hospital for the insane or experience in the detection of mental diseases will be considered and credit given in the examination. Candidates must have had one year's hospital experience or two years' professional work. Candidates must be not less than 5 feet, 4 inches, nor more than 6 feet, 2 inches, in height. The examination usually covers a period of about ten days. For further information, or for invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

Medical Society Opened to Women Members.—For the first time in its history, the Orleans Perish Medical Society has admitted women practitioners. At a recent meeting Drs. Sarah T. Mayo and Elizabeth Bass were elected to membership, and more women are expected to make application for membership.

Pure Milk for New Orleans Babies This Summer.—A delegation of the Shriners recently came to New Orleans to aid in collecting a fund to obtain pure milk for the poor babies of the city and in the interest of child welfare. It is estimated that over $15,000 was collected for this purpose, to which the effort of the Shriners contributed considerably.

Polished Rice a Safe Diet.—The theory that polished rice is responsible for the disease of beriberi was discredited by Drs. Creighton, Wellmann and C. C. Bass before the American Society of Tropical Medicine in Washington in May. Experiments with fowls and pigeons during the last year have shown that exclusive

diet on potatoes and many of the breakfast foods will produce paralysis just as exclusive diet on rice. The manufacture and sale of polished rice has been prohibited in several States in this country, but it is probable that remedial legislation will be begun in such States in an effort to restore rice among the list of valuable food commodities. An interesting point brought out the fact that the commercial coating of rice as sold actually protects the rice.

Cancer Prevention.—Plans for the formation of a society for the study and prevention of cancer has been announced by Frederick L. Hoffman, director of the National Association for the Study and Prevention of Tuberculosis. The committee includes Dr. Leroy Broun, James Speyer, V. Everett Macy and George S. Clark all of New York. A number of wealthy women, among them Mrs. Cornelius Vanderbilt, Mrs. Russell Sage and Mrs. James Speyer, have offered financial aid to start the movement. Mr. Hoffman states that certain known facts make the work of prevention to some extent possible. Corsets worn by women, heat on the lips from the stem of a clay pipe, growths caused by tar in those in the pitch industry, the eating of too hot food and of brook trout are among the suggested cause of the disease.

Fund Pledged for the Levi Hospital.—Sixty-five thousand dollars has been pledged for the building of the Leo N. Levi Memorial Hospital at Hot Springs, Ark. About fifteen thousand more is needed, as the hospital is to cost $80,000.

New Sanitarium Opened.—St. Francis Sanitarium, an institution made possible by the princely gift of Father L. Enaut, of Monroe, was formally opened recently. The Monroe people are proud of the institution. The buildings and grounds represent an investment of $150,000. Of this amount $10,000 was contributed by the Franciscan Sisters, for whom the institution is named. The other $140,000 represents the donation of the aged priest, Father Enaut.

Dr. Fellows Chosen.—Dr. George Emory Fellows, university president and writer, who is well known in New Orleans, has been chosen president of James Milliken University, of Decatur, Ill. He will take charge of his new duties July 1.

California Educator Honored.—Prof. Adolph C. Miller, of Berkeley, Cal., professor of economics and commerce at the Uni-

versity of California, has been selected as first assistant secretary of the Interior Department at Washington. He will be assigned to the general supervision of the Bureau of Education and National Parks, to the direction of eleemosynary institutions and the government hospital for the insane.

Removals.—Dr. B. H. Baylis, from Belmont, N. C., to Mooresville, N. C.

Dr. G. C. McKinney, from State Board of Health, N. O., to Lake Charles, La.

Dr. C. B. Lavender, from Panola, Ala., to Geiger, Ala.

Dr. E. L. King, from Presbyterian Hospital, N. O., to 411 Macheca Building.

Dr. A. J. Sands, from Kansas City, Mo., to Lynch, Okla.

Dr. E. A. Pierce, from Bogalusa, La., to Port Barry, La.

Married.—On April 20, 1913, Dr. George C. Wellons, to Miss Emma Dora Wellingham, both of Memphis, Tenn.

On April 20, 1913, Dr. Alfredo Roncovieri, of San Francisco, to Miss Marie Soto Hall, of Guatemala.

Died.—On May 6, 1913, Dr. Louis G. Le Beuf, prominent physician of New Orleans, aged 47 years.

On April 27, 1913, Dr. Ruffin C. Claiborne, of New Roads, La., aged 33 years.

On April 29, 1913, Dr. Charles C. Prichard, of Harrisonburg, La., aged 58 years.

On May 9, 1913, Dr. Joseph Warren Dosset, of Mobile, Ala.

On May 3, 1913, Dr. Wickliffe O. Juneau, of Cottonport, La., aged 25 years.

On April 23, 1913, Dr. William G. Ward, of Mobile, Ala.

On April 28, 1913, Dr. William Morris Fontaine, at Charlottesville, Va., for thirty years head of the School of Natural History and Geology at the University of Virginia, aged 72 years.

On April 17, 1913, Prof. Lester F. Ward, of Washington, D. C., American social philosopher, geologist of note and author of many scientific works, aged 81 years.

On May 7, 1913, Dr. Louis A. Duhring, of Philadelphia, Pa., famed as a writer and an authority on skin diseases, aged 67 years.

On May 3, 1913, Dr. Alice Graham, of Kansas City, Mo., founder of Mercy Hospital for the care of crippled children, aged 53 years.

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 accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Surgery, its Principles and Practice, by W. W. KEEN, M. D. W. B. Saunders & Co., Philadelphia.

It was originally intended that this work should consist of but five volumes. Since the publication of these volumes, however, surgery has made such rapid progress and so much that is new has developed, that the original collaborators were asked to furnish the new material to bring the work up to date. The sixth volume, which is just out, well deserves the name of "The Newest Surgery"; all that was new in the old subjects has been added as additional chapters on Anoci-association; the methods of anesthesia by Meltzer and Auer by intra-tracheal insufflation; the newer methods of anesthesia by nitrous oxid and by intra-venous introduction of ether; the surgery of the hypophisis; the use of iodin in the infection of wounds; Salvarsan and Thoracic Surgery, with much more of equal interest. Whereas it is unnecessary to go fully into detail in reviewing this volume as the work is already well known to the profession, I have no hesitation in saying that this book, whose contributors like their predecessors are men of international reputation and authorities on the subjects with which they deal, and edited by Keen, make it, in my opinion, the most complete work on surgery yet given to the profession.

MARTIN.

Surgical Treatment, by CHEYNE and BURGHARD. Lea & Febiger, Philadelphia and New York, 1912.

This is the third volume of Sir Watson Cheyne's manual surgical treatment in collaboration with Burghard, who is surgeon to King's College Hospital and with other well-known English surgeons.

We can but reiterate what we said of the preceding volumes that this work presents the best ideas and thoughts of the present day English surgeons.

The surgical affections of the joints, the spine, the head and the face comprise the main features of this volume. LARUE.

International Clinics. J. P. Lippincott Co., Philadelphia and London, 1912.

This is one of the sequel volumes in the twenty-second series and similar to the others is replete with lectures on varied subjects.

We will specially mention the frontispiece vividly illustrating a hand affected with dry gangrene, with a photograph in the text showing the same hand after spontaneous cure; also a frank report with wise and appropriate comment concerning two fatal cases, following the open operation for fracture of the femur: a carefully prepared dissertation on breast malignancy; a report of a year's work in appendicitis by Deaver, of Philadelphia. LARUE.

Surgical Diseases of Children, by W. F. CAMPBELL, M. D., and LELPAND KERR, M. D. D. Appleton & Co., New York and London, 1912.

This very good book will be found most useful, especially to the family physician, to whom it is dedicated.

It contains all the recent ideas pertaining to the surgical diseases of children. It will be admitted that in children it is essential to early recognize these conditions for on this point rests not only the cure, but the prevention of irremediable deformities.

The chapters on the vaguely known Status Lymphaticus, Acute Polyomielitis of so much recent investigation, fractures and on appendicitis in the young deserve special mention. LARUE.

The Collected Works of Christian Fenger. W. B. Saunders Co., Publishers, 1912.

The two volumes, with the above title, form a lasting and most commendable tribute to the memory of Dr. Christian Fenger, who died about ten years ago. Those who are familiar with that great surgeon's name will find pleasure in perusing these volumes.

Those to whom the name of Fenger is probably unknown will profit by reading through all his works, including his autobiography which gives an insight to the good and great worker that he was, not only here in his adopted country, but in other lands.

The directors of the Fenger Memorial Association with Drs. Coleman, of Buford, and Luding Hekboen are to be highly commended for collecting and presenting this worthy memorial before the medical profession.

LARUE.

Landmarks and Surface Markings of the Human Body, by L. BATHE RAWLINGS, M. B., B. C. (Cant.); F. R., C. S. (Eng.). Paul B. Hoeber, New York, 1912.

This is the fifth edition of Rawling's little book, the title of which is self-explanatory. The thirty-one illustrations are the main feature, the colored ones being especially good. LARUE.

The Surgical Clinics of John B. Murphy, Vol. I, Nos. 3 and 4. W. B. Saunders Co., Philadelphia and London.

It is superfluous to recommend these two volumes, as the name of Murphy is a guarantee of their worth. We, however, call particular attention to certain subjects such as the typhoid spine, cholecythiasis, cystic goitre, extra-dual hemorrhage from trauma and tuberculosis of the intestines; in No. 4 articles on appendicities, ankylosis of the knee, transplantation of bone, tumor of the abdomen and last, but not least, the verbatim report of the brilliant and practical students' clinic held by Murphy for the senior class of the Northwestern Uny. Med. School.

LARUE.

Golden Rules of Surgery. C. V. Mosby Co., St. Louis, Publishers, 1913.

This collection of surgical ideas and advice, tersely presented, was first edited by the late Dr. Bernays, of St. Louis, who was a widely known and skillful surgeon.

This second edition has been revised and arranged to keep pace with surgical progress by Dr. Coughlin, assistant professor of surgery at the University Medical School in St. Louis.

Although we do not agree with all that is to be found in this book, we will admit that, from a purely surgical standpoint, many practical and useful hints are therein contained. It would be unfair, as Bernays frankly states in his preface, not to mention that many of the rules were culled from the Golden Rules of Surgery of Hurry Fenwick, F. R. C. S., of London. LARUE.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1913.

A Manual of Surgical Treatment, by Sir W. Watson Cheyne, C. B. D. Sc., LL. D., F. R. C. S., F. R. S., and F. F. Burghard, M. S., F. R. C. S. New edition, entirely revised, enlarged and rewritten, with the assistance of T. P. Legg, M. S., F. R. C., and Arthur Edmunds, M. S., F. R. C. S.

Modern Treatment of Nervous and Mental Diseases, edited by Wm. A. White, M. D., and Smith Ely Zelliffe, A. M., M. D., Ph. D.

W. B. SAUNDERS & CO., Philadelphia and London, 1913.

The Modern Hospital, by John Allan Hornsby, M. D., and Richard E. Schmidt.

The Operating Room and the Patient, by Russell S. Fowler, M. D. Third edition, rewritten and enlarged.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1913.

Private Duty Nursing, by Katherine Dewitt, R. N.

When to Send for the Doctor and What to do Before the Doctor Comes, by Freida E. Lippert, M. D., and Arthur Holmes, Ph. D.

P. BLAKISTON'S SON & CO., Philadelphia, 1913.

Appendicitis, by John B. Deaver, M. D., Sc. D., LL. D. Fourth edition, roughly revised.

Lang's German-English Dictionary, by Milton K. Meyers, M. D. Second edition, edited and revised.

WM. WOOD & CO., New York, 1913.

Insurance Medicine, by Henry H. Schroeder, M. D.

MISCELLANEOUS.

Disease in Milk—The Remedy: Pasteurization, by Lina Gutherz-Straus.

Public Health Reports—Volume XXVII, Nos. 27-52; volume XXVIII, Nos. 15, 16, 17, 18. (Washington Government Printing Office, 1913.)

The Third Annual Report of the State Charities Commission of Illinois, to Hon. Charles S. Dencen, Governor, for the Year 1912.

Saunders Books. (W. B. Saunders Co., Publishers.)

Transactions of the American Pediatric Society. Twenty-fourth session, Hot Springs, Va., May 29-31, 1912, edited by Linneaus Edford La Fetra, M. D. (American Medical Association Press, Chicago.)

Selected Papers of Carlos J. Finlay. (Havana, Cuba, 1912.)

Methods and Morals (Worse Than H——l) in Medical Practice, or the Evolution of a Bath Robe, by A. J. Whitworth, M. D.

Transactions of the Fifth International Sanitary Conference of the American Republics. (Pan-American Union, Washington, D. C., Nov. 5-11, 1911.)

Reports of the Department of Sanitation of the Isthmian Canal Commission for the Year 1912.

Reports of the Department of Sanitation of the Isthmian Canal Commission for the Month of February, 1913.

Birth and Death Bookkeeping. (Submitted by the Association of Life Insurance Presidents).

Solidified Carbon Dioxide, by Ralph Bernstein, M. D. (Frank S. Betz & Co., Hammond, Ind.)

Bulletin de L'Association Francaise pour L'Etude du Cancer, Publié par M. M. Pierre Delbet et R. Ledoux-Lebard.

New Towns and Business Opportunities. (Chicago, Milwaukee and St. Paul Railways Co., February, 1913.)

Digest of Laws and Regulations in Force in the United States Relating to the Possession, Use, Sale and Manufacture of Poisons and Habit-Forming Drugs, by Martin I. Wilbert and Murray Galt Motter. (Washington Government Printing Office, 1913.)

Reprints.

A Privileged Medical Class; Why the American Medical Association is Going Backward, by G. Frank Lydston, M. D.

Plague, by W. C. Rucker.

Hookworm Disease, by Charles Waddell Stiles and George F. Leonard.

Federal Public Health Administration, by J. W. Kerr.

Typhus Fever and Typhoid Fever, by Jos. Goldberger.

Hookworm Disease, by Charles Waddell Stiles and W. L. Altman.

Public Health Administration, by George W. Trask.

Hospital Relief for Rural Districts, by Charles Waddell Stiles.

Removal of the Sternum for Cancer with Suturing of the Innominate Vein, by Emory Lanphear, M. D., Ph. D., LL. D.

A Neisser Story, by E. S. McKee, M. D.

The Importance of Right Living, by J. M. Eager.

Measles, by W. C. Rucker.

The Injurious Effect of Overheated Dwellings, Schools, etc.; Tuberculosis: Its Predisposing Causes, by F. C. Smith.

A New Method of Grading Milk and Cream, by Wm. C. Woodward.

Snuff and Tobacco, by Chas. Wardell Stiles.

The Rat, by R. H. Creel.

A Fourth Contribution to the Etiology of Beriberi, by Edward B. Vedder.

A Study of Polyneuritis Gallinarum; A Fifth Contribution to the Etiology of Beriberi, by Edward B. Vedder and Elbert Clark.

A National Department of Health and the National League for Medical Freedom; Or Organized Medicine vs. Organized Quackery, by Wm. J. Robinson, M. .D

A Prophylactic Value of Vaccines in Typhoid Fever, by J. Clement Clark, M. D.

The Desication Process of Tissue Destruction as Applied to Certain Pathological Conditions, by Wm. L. Clark, M. D.

Endemicity of Yellow Fever, by Juan Guiteras.

The Citizen and the Public Health, by A. M. Stimson.

How You Can Make Your Home, Town or City Flyless, by C. M. Hodge.

A New Synthesis of 4 (or 5)—B—Aminoethyl-Glyoxaline, One for the Active Principles of Ergot; The Synthesis of Histidine, by F. L. Pyman, Ph. D., D. Sc.

The Constitution and Synthesis of Damascenine, the Alkaloid of Nigella Damascena; The Constitution of Cytisine, the Alkaloid of Cytisus Laburnum Part I. The Synthesis of a-Cytisolidine and of b-Cytisolidine, by Arthur James Ewins, B. Sc.

A Method of Standardising Pituitary (Infundibular) *Extracts; The Significance of the Suprarenal Capsules in the Action of Certain Alkaloids,* by H. H. Dale, M. A., M. D., and P. P. Laidlaw, M. A., B. C.

The Fate of Indolethylamine in the Organism, by A. J. Ewins, B. Sc., and P. P. Laidlaw, M. A., B. C.

Immunity of Guinea Pigs to Diphtheria Toxin and Its Effect Upon the Offspring, by H. J. Sudmersen, Ph. D., and A. T. Glening, B. Sc.

The Synthesis of Some New Dimethyltetrahydroquinolines, by Arthur James Ewins, B. Sc., and Harold King, M. Sc.

The Physiological Action of Cysticine, the Active Alkaloid of Laburnum (Cystisus-Laburnum); *Further Observations on the Action of B-Inimozo-lylethlamine; Notes on the Revised Action of Chorda Tympani on Salivary Secretion; A Simple Coagulometeo,* by H. H. Dale, M. A., M. D., and P. P. Laidlaw, M. A., B. C.

Nouveaux Dérivés Sulfurês; Arsenic et Syphilis, par la Dr. A. Mouneyrat.

Demineralized Food and Cancer, by Horace Packard, M. D.

The Technique and Results of Radium Therapy in Malignant Disease, by M. Dominici, M. D., and A. A. Warden, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
FOR APRIL, 1913.

CAUSE.	White	Colored	Total
Typhoid Fever	------	------	------
Intermittent Fever (Malarial Cachexia)	------	------	------
Smallpox	------	------	------
Measles	10	3	13
Scarlet Fever	------	------	------
Whooping Cough	1	------	1
Diphtheria and Croup	5	2	7
Influenza	3	1	4
Cholera Nostras	------	------	------
Pyemia and Septicemia	2	------	2
Tuberculosis	48	46	94
Cancer	16	7	23
Rheumatism and Gout	------	------	------
Diabetes	2	2	4
Alcoholism	------	1	1
Encephalitis and Meningitis	2	5	7
Locomotor Ataxia	------	------	------
Congestion, Hemorrhage and Softening of Brain	19	7	26
Paralysis	1	1	2
Convulsions of Infancy	------	4	4
Other Diseases of Infancy	6	4	10
Tetanus	1	1	2
Other Nervous Diseases	9	2	11
Heart Diseases	48	37	85
Bronchitis	4	2	6
Pneumonia and Broncho Pneumonia	17	27	44
Other Respiratory Diseases	------	1	1
Ulcer of Stomach	2	------	2
Other Diseases of the Stomach	4	3	7
Diarrhea, Dysentery and Enteritis	18	11	29
Hernia, Intestinal Obstruction	2	1	3
Cirrhosis of Liver	7	3	10
Other Diseases of the Liver	4	1	5
Simple Peritonitis	2	------	2
Appendicitis	1	------	1
Bright's Disease	25	23	48
Other Genito-Urinary Diseases	9	12	21
Puerperal Diseases	2	4	6
Senile Debility	6	5	11
Suicide	1	------	1
Injuries	14	20	34
All Other Causes	16	16	32
TOTAL	307	252	559

Still-born Children—White, 11; colored, 28; Total, 39.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 13.54; colored, 29.94; Total, 17.98.

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

Mean atmospheric pressure 30.09
Mean temperature 67.5
Total precipitation ..... 4.90 inches
Prevailing direction of wind, southeast.

Vol. 65 JULY, 1912 No. 1

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New Orleans Medical and Surgical Journal

ESTABLISHED 1844

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VOL. SIXTY-FIVE NO. ONE

JULY, 1912

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A Dependable Tail Lamp is a necessity for every physician's automobile. The "Dainty" tail lamp, manufactured by the R. E. Dietz Co., is absolutely reliable, sheds a clear light on license number and shows a ruby danger signal 1000 feet. Tourists from America will see the Dietz "Dainty" in the most distant countries. It may be had for kerosene or in combination with electric bulb.

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Congestive Dysmenorrhea.—Dr. F. H. Davenport, assistant in Gynecology, Harvard Medical School, in his book on "Disease of Women," says: "It is by all means wisdom to avoid, if possible, all the use of stronger sedatives and anodynes." Again Dr. Davenport, in his work on "Non-Surgical Gynecology," says: "Hayden's Viburnum Compound has seemed to be the most effectual remedy of this class, given in hourly teaspoonful doses in hot water, for five or six times." That it is of value in the treatment of dysmenorrhea is indicated both by its employment by gynecologists of to-day and in the past by J. Marion Sims, who recommended its employment. It is not a narcotic, and contains no habit-forming drugs. As a uterine sedative it is in the opinion of physicians not only dependable, but safe to administer.

We Have Tried Laxol in this institution, and have always found it thorough in effect and pleasant to take.—Dr. S. Hardler, Superintendent Jewish Orphan Asylum, Rochester, N. Y.

Atonic Indigestion demands vigorous treatment. For years, Seng has held a unique place as a gastro-intestinal tonic, and under its use the most far-reaching benefits are obtainable in functional diseases of the stomach and intestines.

An Ideal Laxative is one that does not gripe nor give rise to reactionary constipation. Such is Prunoids, the most pleasant and reliable remedy at the command of the profession for the effectual regulation of the bowels.

Dr. C. C. Haskell, department of experimental medicine of the Lilly laboratories, Indianapolis, recently returned after a summer's work on Staten Island, New York. He has been connected with the Seaside Hospital of St. John's Guild for several years, studying infants' diseases, especially dietary troubles. The past summer he was house physician and had special opportunity to study the question of infant foods and feeding.

Gynecologic Therapeutics.—The growth of gynecology lately has been confined especially to surgical therapeutics. Even Skene regretted that medical treatment does not receive its merited attention. The practitioner is compelled to rely on remedies which have been tested by clinicians with years of experience. The most frequent diseases of women are from functional disturbances of the pelvic organs. For these the attention of the medical profession is called to Dioviburnia, a combination of vegetable drugs, which has stood the test of many years.

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A. St. John Labry, Business Manager.
Office at New Orleans Polyclinic,
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PUBLISHERS' NOTES.

Reed & Carnrick, manufacturers of Peptenzyme and other products, have just issued an interesting pamphlet entitled "The Doctor's Riot," which they are sending to all the physicians in the United States. It contains a photograph of the New York Hospital-scene of the Doctor's Riot on April 13, 1788, and reproductions of excerpts from the *New York Packet* during that year. It is well worth sending for.

In the Treatment of all rheumatic, neuralgic and grippy conditions, Tongaline by promoting the absorptive powers of the glands which have been clogged and by its stimulating action upon the liver, bowels, kidneys and skin, will relieve the pain, allay fever, eliminate poisons, and stimulate recuperation.

A New Remedy for Malaria known as Sinkina is now being advertised by the Metropolitan Pharmacal Co., of New York City. Clinical experiments made in the government hospitals of Italy have demonstrated that it possesses remarkable properties in the treatment of Malaria. The company is also in possession of numerous reports from American physicians concerning the remedy.

cians. Insect bites, bee stings, sunburn and its frequently following dermatitis, strains and small joint injuries, sprained ankles, ecchymosed eyes, infected wounds, etc., will demand a suitable remedy. All inflammatory conditions rapidly subside when dressed with Antiphlogistine. Its convenience of application and satisfactory results makes it almost indispensable in emergency work.

The Most Efficient means of treating vaginitis consists in maintaining an antiseptic influence within the vaginal vault. In this way the cause is best combatted. A Santone cachet, the powdered contents of which upon dissolution enters every crevice, meets this requirement. Its value in vaginitis will be appreciated when it is understood that among its constitutents are eucalyptus, hydrastin and tannin. A sample sufficient for trial may be had by addressing The John Holmes Drug Co., St. Louis, Mo.

The Many Cases of Nasal and Nasopharyngeal inflammation prevalent at this season call to mind the fact that Glyco-Thymoline is almost a specific in their treatment. Its cooling, soothing and slightly anodyne effect is well known to the profession. Due to its exosmotic properties the congested area of the inflammation will be relieved; by stimulating the capillaries to renewed activity it brings about a normal condition of the parts.

Iodine in Late Syphilis is among the indispensable therapeutic agents, yet it is due to the skill of the pharmaceutical chemist that it has held its high rank as a drug agent. In Iodia (Battle) the physician has an iodine product of distinct usefulness, especially in the later manifestations, which is free from the irritating qualities of the plain iodide. Its effects are enhanced by the addition of certain vegetable alteratives which have been shown to exert an influence on the syphilitic processes.

Dr. E. D. Fenner's Sanitarium.—A private Orthopedic infirmary and sanitarium for the treatment of deformities and joint diseases in patients of all ages, and for the care of sick children.

Anemia has been found to respond to treatment with Vanadium. Vanadiol, a derivative of Vanadium, increases the hemoglobin content of the blood, relative red cell count and accelerates the work of digestion. Sample and literature free if you mention this Journal. Address Vanadium Chemical Co., Vanadium Bldg., Pittsburg, Pa.

For Treating Boils.—To abort boils or carbuncles apply Campho-Phenique (liquid), using plenty of absorbent cotton. When the wound is free from inflammation, apply Campho-Phenique (powder) as a finishing dressing. It has a tendency to stimulate the granulation of the tissues.

The Value of the Bromides as therapeutic agents has been accentuated in recent years. Many modifications have been offered, but none has been found possessing properties that make it preferable to the well-known compounds. On the other hand, the administration of the pure salts is often attended by results known as bromism. This can be almost entirely eliminated by the use of adjuvants and correctives. In Neurosine, which represents the most careful product of pharmaceutical skill, is found a nerve sedative which is safe and efficient.

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PUBLISHERS' NOTES.

Lynnhurst.—A private sanitarium for nervous diseases, mental disorders and drug addictions. Large grounds, new and modern equipment, hydrotherapy, electrotherapy, massage and rest treatment. A rest home for nervous invalids and convalescents.

Chemical Food is a mixture of phosphoric acid and phosphates. The Robinson-Pettet Co., Incorporated, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

A New Vacule Package is now being advertised by the H. K. Mulford Company, of Philadelphia. They are vacuum containers employed for the prevention of deterioration of potent drugs. Investigations show that many preparations undergo changes, even in tightly corked bottles, resulting in a great loss of activity and rendering them unreliable. Experiments conducted in the Mulford Research Laboratories, showed that the deterioration is due primarily to the action of oxygen of the air held in solution in the liquid. With complete exclusion of air practical permanency may be secured, hence the H. K. Mulford Co., have placed upon the market standardized preparations of Ergot, Digitalis and Strophanthus in "Vacules" (Vacuum Ampuls).

The Elimination of Opium's Untoward Phenomena.—Were it not for its several disagreeable features opium would be the ideal analgesic. Unfortunately those well known phenomena tend to limit its usefulness as a pain-relieving agent. With the discovery of processes by which it is possible to eliminate the convulsive and narcotic principles of the drug, Papine (Battle) became possible. In its manufacture the objectionable qualities have been eliminated, the finished product representing the analgesic and sedative properties only of this valuable drug. The utmost care is taken in the manufacture of Papine and it is believed that it offers advantages over opium.

Pituitrin in Difficult Parturition.—Every physician having obstetrical practice should familiarize himself with the oxytocic function of Pituitrin. According to reports from the Old World, it is destined to rob childbirth of much of its pain and terror. It is an agent that fails but once in over a hundred cases, according to a report of Vogt, of the Royal Gynecological Clinic of Dresden. Vogt adds: "It was not necessary to have recourse to forceps in a single instance in which Pituitrin was employed." For the benefit of the uninformed, it may be said that Pituitrin is an extract of the infundibular portion of the pituitary gland. While in use for a number of years as a hemostatic and heart stimulant, it is only of late that its value in uterine inertia has been understood. It is prepared by Parke, Davis & Co., to whom inquiries should be addressed for particulars. Not long ago the company issued a pamphlet in which interesting reports were published. Copies are still to be obtained upon application to Parke, Davis & Co., Detroit, Mich.

H. B. Lee, M. D., Summerville, S. C., says he has used Antiphlogistine frequently in severe burns and scalds and yet has to meet his first disappointment in its curative power.

Lilly's Liquid Soap is invaluable to the physician and surgeon. It is readily miscible with water, clean and can be conveniently carried in the physician's case. It can be quickly and thoroughly applied to the parts to be washed. When the physician becomes accustomed to it he finds that he relies upon it much as he does upon certain drugs. It is a liquid soap of pure vegetable oil, clear, unscented and contains no foreign germicidal agents, yet is antiseptic. The container is unique and its construction obviates slipping from wet hands. A special plunger stopper prevents leakage and clogging of the orifice. Supplied by the drug trade in 10 ounce bottles and one gallon containers.

Intestinal Torpor.—Few ailments are more difficult to correct than the constipation of sedimentary habits. While at first, little or no discomfort may be felt, as time goes on faulty elimination dams back into the system poisons that work still greater mischief. Soon these patients become confirmed toxemics. The opinion is growing that defective elimination of bodily wastes is one of the most important factors in the development of mental as well as nervous disorders. The great importance of preventing waste accumulation cannot be over-estimated. Among the means brought forward for bowel elimination is Prunoids. This remedy has advantages that will appeal to both patient and physician. Although exceedingly active, it never sets up undue peristalsis. Griping, pain, and discomfort are absent. They act by increasing and promoting natural processes, never by supplanting them. Used properly for a reasonable period, Prunoids may be relied upon to restore the bowel functions and afford pronounced relief from intestinal autotoxemia.

A New Specific in Rheumatism.—Melubrin acts as a specific in articular rheumatism. Hoppe of the Berlin General City Hospital *(Berlin Klin. Woch.*, 1912, No. 22) says that as an antirheumatic it stands close to salicylic acid in efficiency, and is more acceptable. Its freedom from toxicity commends it to Hoppe's mind. Muller of the Deaconess Hospital, Halle *(Vienna Klin. Woch.*, 1912, No. 25) remarks on its value in acute and chronic rheumatic polyarthritis. He also commends it as an antipyretic, especially in pneumonia and sciatica. Samples will be sent physicians by the Farbwerke-Hoechst Co., 31 Beach Street, New York.

THERAPEUTIC MEMORANDA.

For Infiltration and Conductive Anesthesia.— Biberfeld found Novocain produces weaker toxic effects than any hitherto known anesthetic. It is non-irritating and has no peripheral effect on vessels. (Shields, *Lancet Clinic,* March 30, 1913.) As to the quantity that may be injected at any one time, this remains still indefinite, as there has never been a case of poisoning reported. Braun has used 250 cc. of a ½ per cent solution, besides small amounts of a 1 per cent solution at one time. This represents 1¼ grams (practically 19 grains) of Novocain. Personally I have never found it necessary to use more than 150-175 cc. and have never seen a case of toxemia.

Operative Surgery of Goitre.—Although I think the majority of surgeons are using ether, it seems to me the best results are obtained under preliminary scopolamin and morphia with Novocain and adrenalin locally at the time of operation. (J. P. Marsh, *N. Y. State Jour. Med.,* April, 1913.) Regarding the use of straight cocain in these cases, I would not have the courage to employ it. When Novocain is seven times less toxic and ten times more anesthetic than simple cocain, the use of the latter is almost inexcusable.

Intravenous Anesthesia.—Hayward (*Arch. f. Klin. Chir.* Bd. 94, Hft. 4 by *Int. Jour. Surg.,* March, 1913), presents observations based upon 375 cases of intravenous anesthesia in Bier's clinic. It has replaced general narcosis almost completely in operations upon the extremities owing to its reliability and freedom from risk. Novocain in ½ per cent. solution is used in amounts of 30-100 cc., according to age and sex. Complete anesthesia was obtained in 93 per cent. of the cases.

Operations on Hands and Feet.—Kaerger reports (*Arch. f. Klin. Chir.* 1912, XCIX, 983 by *Surg. Gyn. and Obst.,* March, 1913), 150 operations on hands and feet in Bier's clinic under direct Novocain anesthesia of the smaller veins. Sixteen were for ingrown nails, amputation of toes, etc., and 134 were on the hands for removal of foreign bodies, metacarpal tumors, amputations, whitlow and phlegmon.

Fellows' Syrup
of the
Hypophosphites

The uniformly high character of this preparation
is steadfastly guaranteed by
the manufacturers

Reject < **Cheap and Inefficient Substitutes**
Preparations "Just as Good"

22
11
22
22
242

It is neither satisfactory nor safe to prescribe by 'rule o' thumb'. Not every anemic patient requires Iron or responds to any kind of Iron. ***But***

Hemaboloids
ARSENIATED
(with Strychnia)

meets all possible indications for hematinic antihemolytic, reconstructive, nutrient and tonic medication, in a form which is most readily assimilated without irritation or digestive disturbance.

Dose: 1 tablespoonful t. i. d.

The Palisade Mfg. Co.
Yonkers, N.Y.